THE

Harveian Oration.

BY THE LATE E. A. PARKES, M.D., F.R.S.

Delivered before the Royal College of Physicians, Monday, June 26th, 1876,

BY SIR WM. JENNER, BART., K.C.B., M.D., F.R.S.

As you, Sir, are aware, the oration I am about to read was written and was to have been delivered by a Fellow of this College dear to all acquainted with him, and very, very dear to all who knew him. Our last president, when Dr. Parkes died, expressed a wish that I should read the oration that he had prepared. The manuscript was, I found, unfinished; but incomplete and unfinished as the oration is, it seems to me to contain so able and just an estimate of the character of Harvey's mind and of the value of his labours, as to be worthy of being read, even in its incomplete state, before the College; and I believe that you, Sir, will agree with me that a tribute from such a man as Parkes to the memory of Harvey should not be withheld from the Fellows. No doubt, had Dr. Parkes lived to deliver the oration, some few sentences would have been polished, some parts of the manuscript would have been expanded, and some parts curtailed, and a conclusion worthy of the occasion and of the orator would have been added, while grace would have been given to the oration in delivery by his voice, so pure and clear, and by his manner, so simple and yet so impressive. I was anxious that the duty I have undertaken should have been entrusted to one more competent than I am to do justice to the oration and to Parkes's work and character, but as my only wish is that the greatest possible honour should be done to Parkes's memory, I yield to Sir George Burrows' judgment that it is better that I, from my age, standing in the College, and long and intimate acquaintance with Dr. Parkes, should discharge the duty; and this must be my excuse to you, Sir, and to the Fellows, for my standing here to-day, and for all my shortcomings.

SIR,—On the statue of William Harvey which was erected by his contemporaries of the College of Physicians, and which was burnt in the great fire of London, was an inscription "viro monumentis suis immortali." In these days, when discovery succeeds discovery so fast that it taxes the memory to remember the discoveries, much more the names of the discoverers, it may be asked, Can we call any memory or any works immortal? Some few names in literature, some few in philosophy, and some among those who have founded or destroyed empires, have echoed down the stream of time for a thousand or may be two or three thousand years, and have thus secured what we call immortality. But will William Harvey be admitted into this scanty band? A thousand years hence will there be, in this city, an Harveian orator standing before the great physicians of those days, and proclaiming still the immortal name of the discoverer of the circulation of the blood? It may seem rather too curious thus to endeavour to anticipate the verdict of posterity, but it is only when we put the question in this way that we get the measure with which this discovery must be meted. Is it pure gold? does it stand the fire of the assay? will time bring no dimness upon it, nor eat into its substance and transform it into dust? The answer I believe must be that the explanation of the actions of the heart and of the circulation of the blood is not only one of those cardinal discoveries which lie at the very foundation of physiology and medicine, but is from its very nature one of those great landmarks which must remain in the sight of all. The full interpretation of this great discovery is even now not given, for we are still painfully learning what the blood does in that marvellous circuit which never ends, yet ever recommences. The discovery can no more be overlooked or passed by in physiology, than the movements of the world round our sun, and of our sun round some great centre, could be overlooked in the investigations of astronomy. We may then, I think, confidently assert that this discovery is what we call an immortal one—that is, that it is too great and too momentous to permit men to let the name of the discoverer fade from their minds.

The oration which I have the honour to deliver to-day was not originally intended either to celebrate the discovery of the circulation or the name of the discoverer. It was, in fact, instituted by Harvey himself, and was intended to recall to the memory of the fellows of the College of Physicians the names of the benefactors who, in their day, had done the College good and true service, and to exhort the members of the College to study and search out the secrets of nature by way of experiment. And it may be hoped that in years to come there may be many names and many memories which will be recalled in this hall and on this anniversary, and that other discoveries, if not so splendid as that of Harvey's, may still be enumerated with pride by successive Harveian orators. But on the present occasion I propose not to pass beyond a theme which has had for me a powerful attraction. When anyone examines into this discovery of Harvey's, and gradually recognises its extraordinary importance (for the full sense of what it is grows upon him as he studies it), he cannot but be seized with an urgent wish to know how the mind which solved so great a problem was constituted; how it worked and how it reached, not merely the probability, but the certainty, of a grand natural law. The proof of the circulation of the blood was a discovery in the truest sense of the word. There was no accident about it—no help from what we call chance; it was worked out and thought out, point after point, until all was clear as sunshine in midsummer. Nor had it been anticipated. Harvey himself states quite candidly and truthfully how opinions stood before he published in this College his evidence on the motion of the blood. Men for years had perplexed themselves about this problem. Now one guess, now another, may have hovered for a moment near the truth; but, as Dr. Rolleston has so well shown in a former Harveian oration, there cannot be for a moment a doubt of the entire originality of Harvey. As he claimed for himself, so we can most justly claim for him, that he "was the partisan of truth alone," and truth would have been shamed if he had robbed the least of his predecessors of a single grain of the discovery.

What, now, was the intellectual calibre and tendency of Harvey's mind as far as we can judge of it from his works? He appears to me to have had in a marked degree what is sometimes called the "scientific mind." But this term is not, I think, a good one. Some men who have nothing to do with science have a mind like Harvey's; there were examples of it in pre-scientific days, and, though it may be more common in our time, it has existed always. Nor is the term otherwise a correct one. Men of great mathematical insight must be called pre-eminently scientific; but the scientific mind to which I refer is not mathematical in the highest sense of the word. Harvey was one of those men who are urged on to submit everything to experiment and observation. As he himself says (I quote, of course, from Dr. Robert Willis's admirable translation), "he professed to learn and teach anatomy, not from books, but from dissections—not from the positions of philosophers, but from the fabric of nature." And in his introduction to his work on Generation, where he has a chapter on the "Manner and Order of acquiring Knowledge," he says, among other sentences to the same purport, that "all true science rests upon those principles which have their origin in the operation of the senses; and that no one can truly be entitled discreet or well-informed who does not of his own experience, from repeated memory, frequent perception by sense, and diligent observation, know that a thing is so in fact." And in another place he says, "Nature is herself to be addressed; the paths she shows us are to be boldly trodden; for thus, and while we consult our proper senses, from inferior advancing to superior levels, shall we penetrate at length into the heart of her mystery."

It may be said that a mind of this kind, the main character of which is a habit of diligent observation of nature, presents nothing unusual, that all men have it more or less, and that we cannot make this habit or power a means of classification, or partition out an order of minds by what is a common possession of all minds. My contention is, how-

ever, that some minds possess this power and intentness of observation in quite an extraordinary degree, so that it really does separate them from other men. A parallel case may be found in music. All men have some musical power, but every now and then a man is born with such an extraordinary genius that he is quite lifted out of the crowd of common musicians. Mozart was at five years of age trying to compose a concerto for the harpsichord, and at eight years composing six sonatas which were good enough to be published; Mendelssohn at twelve conducting his own operas; Beethoven deaf, yet knowing how to harmonise and combine the notes of diverse instruments not one of which he could hear. All these and many others are examples that an universal faculty may rise into a region which seems above common humanity. In the same way poets are truly said to be born, not made, for, admitting all the power of education, when we see that scarce ten centuries can claim an epic, we cannot but doubt whether education alone will ever elevate the poetical faculty, more or less possessed by all men, into those splendid examples which the names of Homer, Æschylus, Dante, Milton, or Shakespeare recall. And so also there appears to me a mind with quite peculiar mathematical insight. When Newton first read Euclid it seemed a well-known road to him; his apprehension of the demonstrations which ordinary men take so much time and trouble to learn was so quick that the whole field of geometry unrolled before him almost as if he had a prior knowledge of it. But there was nothing in the nature of Newton's mathematical insight which was different from that of other men; it was merely that the extent and power of that part of his mind (as well as other parts) was so wonderful.

In the same way it seems to me that there is a mind pre-eminent in its power of observation and in its recourse to experiment. When it exists it gives us the great naturalists, and chemists, and physiologists of the time. Let anyone call up to his memory men whom he knows, and who are the acknowledged masters in Botany, or Zoology, or Chemistry, and I think he will admit that these have quite unusual powers of close observation and appreciation of natural phenomena. Here, again, it is power possessed by all men, but in them carried to an extreme. When, as in Newton, this observing or experimental power is combined with mathematical insight, we get a philosopher of the highest class, who writes his name indelibly on the record of Science.

Now, I claim for Harvey a position among the men exceptionally gifted with these powers of observation. There is in his works on Circulation and on Generation quite sufficient proof of this, and I shall give some evidence as I proceed. Men possessed of this power seem to be unable to avoid exercising it. They must observe, must try experiments, must, to use Bacon's phrase, be always asking questions of Nature. In the middle ages, to "put a man to the question" was to torture him into an avowal of the truth, and in this sense Harvey may literally be said to have tortured Nature. He was a thorough vivisectionist, and animals of all kinds ministered to his insatiable curiosity. He owns to having used a "variety of animals," whose living breasts and pericardia he opened, and if he had lived in these days he would, perhaps, have met with scant mercy from a Royal Commission on Vivisection. And yet, without that, would the circulation have been discovered? But the work on Generation shows even still more his power of really intense and continuous observation. What marvellous industry and indefatigable search after facts! And this disposition must have commenced extremely early, for he had made all his numerous experiments on the circulation before he was thirty-seven, and must have lasted to extreme old age, for he was still observing the movements of the stars or the growth of plants up to the time of death, when he was nearly eighty years of age. A usual peculiarity of this class of mind is the great ingenuity and imagination men show in arranging their experiments and in devising new ones. Everyone must have admired the ingenious mechanism by which physical hypotheses are tested or proved; we may see a great chemist not only devising very complete apparatus, but getting at the composition of bodies in the most round-about ways by substitution or residues, so that one is doubtful which most to admire, the marvellous result or the skill which has attained it. There is not much trace of this in Harvey's works, for the subjects perhaps hardly admitted it; he was an anatomist and naturalist, and had only to procure his animals and to make his observations, but there are some parts in his writings which prove he could have shown ingenuity had it been wanted. Yet on the whole I should say he was not an imaginative man, and when Dr. Willis calls him so because he uses some poetical expressions, the fact is overlooked that such expressions are merely the result of culture. Imagination is shown in other ways, and there is little trace of it in Harvey's writings; he bent his mind on the thing before him, and he kept it to objects of sense, and did not attempt, perhaps would not attempt, any flight which led him from the earth, except, perhaps, when by long dwelling on the impenetrable mysteries of generation he allowed his mind to wander a little from the phenomena to their hidden causes. He possessed, however, in a very marked extent, one character of the class of minds to which he belonged. He had faith in facts. Now this may seem a common matter, but it is not altogether so. Many observers have a great mistrust of the facts they have themselves discovered. They are biased by previous theories, they do not see how their new facts fit in, they think there is some mistake, or they do not really fully see what they have seen. At any rate, they explain away what seems to them strange and unlikely, and really modify or alter what they have found. They are, in fact, honestly untruthful. Harvey was quite otherwise; when he had seen and touched, so to speak, a fact, and knew it was so, he accepted it, no matter how it struck on previous knowledge. To this clear truthfulness he owed his great discovery. I will only refer to one example of what I mean. After he had made out the actions of the heart he fell at once upon the problem of the total amount of blood, and tried to determine this in animals, such as sheep and dogs. He then made out the capacity of the ventricles. In man he found the left ventricle would hold two ounces of blood; now his difficulty was to know how much it propelled into the aorta at each contraction, and I imagine that he did not succeed in doing this to his satisfaction, as he gives no experiments on the point. But he says, "Let us suppose, as approaching the truth, that a fourth, fifth, or sixth, or even but the eighth part of its charge is thrown into the artery." Then, counting the pulse, he shows that in half an hour far more blood must pass through the heart than all the blood in the body. In the case of the sheep he says that if only one scruple passes at each contraction in one half hour 3½ lb. would pass, but the sheep's total blood is only 4 lb. But it is obvious he had a still clearer idea of the great velocity, as he takes the very lowest discharge he can conceive—namely, one scruple, so as to be within indisputable limits. But when he had taken his higher limit, he calculates that if the amount be half an ounce, not less than 41 lb. 8 oz. would pass through in half an hour; and if it be one ounce he says the quantity would be 83 lb. 4 oz. He leaves, however, the actual amount to be hereafter settled by the experiments he has made, he says, with reference to this point. Now, even with the conviction of the truth of the circulation he may well have been staggered at this enormous velocity. But he does not hesitate to accept the result. We now know the circulation is much quicker even than this last. Think how many men, when they got a glimpse of this rapidity, would have said, "That is impossible; there is some blunder." Harvey kept to his facts, and had faith in them, just as Edward Jenner, hearing the story that hundreds had heard before him, and had made no use of, had faith in the fact which has given to mankind the power of controlling small-pox.

In consequence of this faith in facts he overlooks none; he passes by none. Now a common error is to think some facts more important than others; but all are important, and if one is left out, a whole heap may fall asunder. Now Harvey omits nothing; he commences with the most obvious, and proceeds step by step; nothing is blurred; nothing is left ill-defined. His work was composed before the Novum Organon was published, but it has been well said by Willis that it might have been planned on the model of that system.

The marvellous clearness of Harvey's treatise on the Action of the Heart and Circulation is quite unsurpassed. It is said that not one of his hearers at this College ever doubted his doctrine, and we can well imagine this when we see the way in which the facts are laid in order;

first this, then that, then a third, and so the mind is led from step to step until the whole is seen clear as daylight. The opposition he met with came from outside, and from abroad, from those who had probably never read his lucid and convincing work. Happily, this College is free from the least suspicion of opposition; it honoured his doctrines when he proclaimed them living, and his memory when his written word alone remained.

Such was the mind, then, so gifted with the highest observing power, so true to what that power saw, so clear in stating what was seen, which made this immortal discovery. And now I think, if my conception of the mind is a true one, we can see clearly how the discovery was made.

Harvey was twenty-four years of age when he returned from Padua. He had no doubt had his attention strongly directed to the subject of the motion of the heart by his teacher, Fabricius. He found everything obscure, and determined, I presume, at that time, to work at this problem. He desired, to use his own words, "to contemplate the motion of the heart and arteries not only in man, but in all animals that have hearts; and, further, by frequent appeals to vivisection and constant ocular inspection, to investigate and endeavour to find out the truth." He nowhere gives a complete list of the animals he employs. He mentions, as it were incidentally, dogs, hogs, sheep, birds, fish, eels, snakes, lizards, toads, frogs, crabs, shrimps, snails, shellfish, bees, wasps, hornets, flies. He laid all the kingdom of nature under contribution, and sacrificed hecatombs of victims. He went still further. Directed to it by a remark of Aristotle, he commenced the study of the development of the fowl in the egg, and also examined the fœtus in man and animals.

At first he tells us that all was obscure, and he found the task so difficult that he was tempted to think with Fracastoro "that the motion of the heart was only to be comprehended by God." But at length, by constant looking and watching, the thing became clear. He disentangled one movement from another, arranged them in time and order, and at last arrived at so perfect a knowledge of the intricate movements of the heart that he left really nothing for his successors to do. That formed, then, the first part of his great work, and gave the first words to its title, "De Motu Cordis."

No doubt years had passed before he had made all this out. Engaged in practice, married, and a few years later becoming physician to St. Bartholomew's Hospital, he can have had but little time for these researches.

At length all was clear about the heart, and he had, in addition, carefully determined the total quantity of blood in the body of animals. He had also found out the action of the cardiac valves, and was acquainted with the valves in the veins; and now there came the next step. He nowhere precisely tells us, but he seems to have kept the whole facts before him, just as Newton tells us he did with his great discoveries, until light began to dawn. To us who are so familiar with the circulation of the blood it may seem strange that Harvey, having solved the mystery of the heart's action and of its valves, being certain that the blood poured out by the aorta and pulmonary artery and flowed in by the vena cava and pulmonary veins, should not have come at once to the idea of the circulation. But there were, perhaps, two causes which held him back. We must remember that there were no microscopes to demonstrate the channel of communication between arteries and veins; and of course he had no true conception of the immense capillary system. Then, even with a mind of such a class, it is impossible to put aside the influence of previous teaching. The power of the general opinion must impress every man, and lead him to see difficulties which are perhaps unreal. Harvey had very soon dismissed the absurd notion that there were invisible pores in the septum of the heart; but he appears to have been seriously hampered by the Galenic doctrine of the blood being supplied at once by the food. But at length he says: "Not finding it possible that this (that is, the quantity of blood) could be supplied by the juices of the ingested aliment, without the veins, on the one hand, becoming drained, and the arteries, on the other, getting ruptured through the excessive charge of blood, unless the blood should somehow find its way from the arteries into the veins, I began to think whether there might not be A MOTION, AS IT WERE, IN A CIRCLE."

Here then, at last, was his great discovery made. I entirely agree with the Harveian orator of last year, Dr. Guy, that Boyle's story of Harvey being led to his discovery by considering the action of the venous valves, is incorrect; that would have been merely a lucky guess from one fact, not an induction from a great many. His next proceeding is most characteristic of Harvey's character of mind. To most of us, I think, if the movement of the blood in a circle from arteries to veins had occurred, the conclusion would at once be that it so completely accorded with all facts that it must be so. We should be tempted to call out "Eureka" like the sage of old. But Harvey's first thought was simply how to completely test and thoroughly prove this idea. He did not at once accept his own conception of motion in a circle, but tested it by experiment; for, says he, "I *afterwards* found it to be true and finally saw" that the blood was distributed in such a way. In fact, he put his own hypothesis into the assay, and proved its truth so clearly and by such able arguments that even at the present day anyone wanting to prove the circulation of the blood (microscopic observations and fine injections not being used) must adopt Harvey's method. In fine, he brought his doctrine to demonstration, and proved it once for all; and, throughout, everything was done by observation and induction. There is no theorising, no useless attempts at explanation, no employment of imagination, no guesses at truth; all is fact arranged in order and leading slowly but certainly up to certain truth. Then the title of his book was complete, "De Motu Cordis et Sanguinis," and it was published in 1628, though since 1616 he had yearly demonstrated its truth before this College. Everybody, in reading Harvey's works, notices the extreme modesty with which he announces his discovery. The simplicity and the entire absence of self-applause are most remarkable. The clearness of the style, the careful avoidance of ambiguity of expression and its brevity, make it indeed a model for all time of a philosophical treatise.

The other work of Harvey's which in part remains to us is the treatise on Generation. Harvey was evidently led, probably by the teaching of Aristotle and of Fabricius, to watch the development of the embryo in the fowl's egg. Probably he may have thought by watching the punctum saliens he would gain some insight into the problem which so long occupied him. But very soon he must have pursued the subject of generation for its own sake, for it formed the study of all the latter part of his life. He had completed a work on the generation of insects, the loss of which during the civil wars caused him great regret, and this and his remarks on the interest Charles I. took in his researches on the generation of deer, show he must have been busy with the subject. Very early during his connexion with the Court he had obtained leave from Charles I. to dissect the does killed in the hunts of which the king was so fond, and he interested Charles himself in the subject.

During the occupation of Oxford, where he remained for some time, he continued his observations on the chick, and in 1650, when he was seventy-two years old, Sir George Ent tells us he was still engaged with the subject. In that year Sir George Ent obtained from him the MS. of the treatise on Generation we now have. He can hardly have studied the subject for less than thirty years. It appears, indeed, to have had for him the same fascination it has had for all physiologists who have attempted this difficult problem. Harvey was less successful with it than he had been with the circulation of the blood. He brought to bear on it the same patient observation and unwearied industry, the same keen insight and unrivalled power; but he was in face of an inscrutable mystery. What he did and how clearly he saw, as far as the light of those days permitted, has been admirably brought before this College by a former Harveian orator, Dr. Farre, who speaks with an authority on this subject second to none in this country. I shall not, then, venture to repeat what has before been so well said. I will only remark that Harvey seems to me to have clearly caught sight of the mystery of generation, which we, with all our better powers of inquiry, are just as much unable to solve. How it is that two minute cells, each so fragile that if removed for a few minutes from the conditions which surround them they die, how it is that these minute and apparently inert cells should meet and then should give rise to the most wonderful power we can conceive, is as dark a problem to us as to Harvey. We see it everywhere, in the vegetable and in the animal kingdom: suddenly from

the contact of two cells of opposite sexes a formative power, as Harvey calls it, arises. The mother cell acquires in a second entirely new powers—it grows, differentiates, produces layer after layer, organ after organ, and all with a most wonderful regularity as to time and order, which holds good age after age in the different species of vegetables and animals. At length arise not only the wonderful machinery of the animal body, but the mind, which tries to investigate its own extraordinary origin.

All attempts to explain this are mere concealments and subtleties of language. Harvey himself abandons in some degree his hold of facts, and looks upon the influence of the male cell on the female as a sort of "contagious effect," which he refers to in his treatise on Conception as accomplished by "atoms, odorous particles, fermentation, or anything else—even something immaterial." But the giving this name to the fact brought him no nearer to an explanation, but even confused it more. He was, in fact, at an end of the means of observation which were possible to him. He had no microscope to carry him farther, as it has done us; though the only effect has been to throw the inscrutable a little back.

It must be said, however, that injustice is done to Harvey if we do not remember that his treatise on Generation is an incomplete work. He had lost the part on Insects; and he also evidently regarded the work we now possess as the commencement only of a complete treatise. Without dwelling further on this great work, I think it may be said that, baffled as he was in his search, it yet shows Harvey's wonderful power of observation as conspicuously as the treatise on the Circulation.

The mention of the loss of the treatise on the Generation of Insects may remind us that other works of Harvey's are lost which would be to us of inestimable value. In his second disquisition to Riolanus he refers to a work on "Medical Observations and Pathology," which he says will throw light on many diseases, and will show, he says, "how speedily some of these diseases that are even reported incurable are remedied and dispelled as if by enchantment." This work is lost, or if it exists.....

With this broken sentence the oration ends, and with it the last literary effort of Edmund Alexander Parkes.

Clinical Lectures
ON
LISTER'S TREATMENT OF WOUNDS AND ABSCESSES BY THE ANTISEPTIC METHOD.

BY THOMAS SMITH, F.R.C.S.,
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LECTURE II.

GENTLEMEN,—In my first lecture I endeavoured to explain to you the theory of Mr. Lister's antiseptic treatment, the facts on which that theory is based, and the advantages claimed for the plan by its author. To-day I wish to describe to you how Mr. Lister reduces his theory to practice. But first, I should state more at length the advantages he claims for the antiseptic method in the treatment of abscesses.

Having opened the abscess, he provides a free escape for the pent-up matter by the use of drainage tubes, and thus he gets rid of the tension which he believes was the cause of the continuance of the suppuration before evacuation. By excluding putrefaction, and thus avoiding a new cause of irritation, which would otherwise come into operation, he leaves the pyogenic membrane free from all abnormal stimulus. As a result of this, he states that suppuration ceases from the moment the original contents of the abscess have been let out, a mere serous oozing being all that subsequently occurs, and that this diminishes more or less rapidly according to the circumstances of the case, lasting longest, as a rule, when carious disease of bone is present. Mr. Lister states that the spontaneous cure of caries under antiseptic treatment is a striking feature of the system, but in order that it may occur he considers it to be essential that the diseased part should be kept absolutely at rest—a condition that is difficult to secure in the treatment of some joints, but can readily be complied with in the case of spinal caries. Lumbar and psoas abscesses, which, as you know, generally do badly after evacuation, are, according to Mr. Lister, most hopeful subjects of treatment, provided that unremitting care be exercised to maintain the antiseptic precautions till the sinuses are completely cicatrised.

In carrying out his antiseptic method in the treatment of wounds and abscesses, Mr. Lister's chief aims are: first, to exclude all germs of putrefaction; and, secondly, to provide a free escape for all secretions. Now the first object is attained by cleansing from putrefactive germs the part to be operated on, the instruments and sponges employed, and the hands of those that use the instruments; by creating a germless atmosphere during the necessary exposure of the part; and by disinfecting all discharges coming from the part, lest putrefaction should occur in these, and from these spread to the wound itself.

Mr. Lister has selected carbolic acid as, on the whole, the most convenient antiseptic for his purpose, and this he uses either in the form of *spray*, to protect the part from atmospheric influences during its unavoidable exposure; as a *watery solution*, for washing the surface to be operated upon, for injecting into a wound-cavity to destroy any sources of putrefaction that may have gained entrance, for purifying instruments, sponges, &c.; and in what is termed *antiseptic gauze*—i.e., thin gauze impregnated with a mixture of carbolic acid and resin,—this being employed over the wound or abscess to soak up and disinfect the discharge. In addition to these preparations, thin india-rubber sheeting and oiled-silk protective are made use of in the dressing of wounds. The former, which is merely a thin layer of india-rubber spread upon calico, is used beneath the outermost layer of the gauze to prevent the discharge coming into contact with the atmosphere, and to make it soak well into the gauze. The oiled-silk protective is used beneath the dressings to protect the cicatrising surface from the action of the carbolic acid; it is formed of oiled silk coated with copal varnish and brushed over with a thin layer of dextrine.

A very important part of Mr. Lister's treatment is the provision he makes to secure a free escape from the wound or abscess cavity of all secretions. This he effects by the introduction of india-rubber drainage-tubes of sufficient calibre, and provided with a sufficient number of lateral perforations to secure a ready escape of all fluids. Mr. Lister has pointed out that under his system it is especially necessary to make this provision, for, when applied to fresh-cut surfaces, the carbolic acid, by its stimulating properties, excites an abundant secretion, which if retained within the wound-cavity would be a serious source of danger; while in the treatment of abscesses the use of the drainage-tubes is insisted on, to avoid tension of the abscess walls by accumulation of pus—tension being, according to Mr. Lister's view, a most potent source of continued suppuration and constitutional irritation.

Perhaps the best way to explain the method of applying the antiseptic treatment to an abscess is to exhibit an actual demonstration of the practice. The large abscess that you see here in the gluteal region is one that has formed in the progress of hip-joint disease, and is without doubt connected with the articular cavity; it is, therefore, suited for our purpose to test the powers of the antiseptic method, especially as the boy has an open abscess in the opposite knee-joint. In this shallow dish, containing a watery solution of carbolic acid (one part to forty) are the instruments required—a knife, director, artery forceps, a large piece of india-rubber drainage-tube attached to a small piece of ligature silk, and a small piece of oiled-silk protective (two or three inches square). Here is the steam spray apparatus made by Mayer and Meltzer, which throws a large cloud of very fine carbolised spray, of the same strength as the lotion (one in forty).* The skin over the surface of the abscess is first sponged with the watery solution of carbolic

* The bottle attached to the spray-producer contains a solution of carbolic acid, one to twenty; the steam from the boiler, mingling with this, effects the necessary dilution.

acid; and Mr. Vernon having cleansed his fingers with the same solution, the steam spray is turned on, and will be allowed to play on the part during the whole process. The abscess is now opened, and the pus is squeezed out as thoroughly as possible; the drainage-tube is passed deeply into the abscess cavity, and its open end is adjusted so as just to come to the level of the skin. The blood and pus are wiped away with a piece of the gauze soaked in the watery carbolic solution; the small piece of oiled-silk protective is put over the wound, a little hole being cut in its centre so as not to obstruct the open end of the drainage-tube; the ligature-silk attached to the tube is drawn through the hole and laid on the surface, and the whole is covered with the gauze dressing. As the discharge is likely at first to be rather free, from so large an abscess cavity, you will observe that Mr. Vernon places about the wound and around the mouth of the tube a few scraps of loose gauze, to soak up the discharge and prevent it running under the larger sheet of the same material. The larger piece of gauze dressing is about twelve inches square; it is made of sixteen thicknesses folded together, and between the two external layers is inserted a piece of the india-rubber sheeting with the glazed surface downwards; this sheeting should be smaller than the gauze, so as to be well overlapped by it. The whole is secured with a bandage made of carbolised gauze.

In the subsequent management of this case it will be necessary, whenever we may think the gauze is nearly soaked with discharge, and before the discharge has made its way through so as to come into contact with the external air, to change the dressing. Until we are aware of the amount of discharge this abscess will furnish, it is well to remove the dressing at comparatively short intervals. Mr. Vernon will examine it to-morrow, and, if the amount of discharge is not excessive, will replace the same dressing, or he may remove the small pieces of gauze from around the tube and replace these by others, retaining the large sheet of folded gauze.

The dressings are always carried on under the antiseptic spray with the same precautions that you have witnessed; the drainage-tube is gradually shortened as it is pushed out by the formation of granulations in the abscess cavity, and at each dressing the tube is thoroughly washed in the watery carbolic solution. In changing the dressing, the gauze, when soaked, must be laid aside; but the india-rubber sheeting may be used again and again, provided it is well cleaned by sponging with carbolic solution.

You will have observed that the details and precautions of this plan are somewhat numerous and minute, and you may think them frivolous; but you will allow me to remind you that, granting the germ theory of putrefaction to be true, they are neither unmeaning nor excessive if it be the design of the treatment to prevent putrefaction.

It is of course absolutely necessary that the dressing should be so efficiently secured that it cannot shift its place, and when the opening is situated at the groin, as in psoas abscess, this is far from easy by the ordinary means. I learn, however, from Mr. Lister that he has lately overcome this difficulty by the simple expedient of putting on outside the dressing a bandage of elastic webbing carried once or twice round the pelvis and thigh, so arranged as to press on the edges of the dressing at the most important parts. Experience has shown that this bandage effects its object without causing either œdema of the limb or discomfort to the patient, while it enables the surgeon to leave his patient safely for a week or more at a time without disturbing the dressing when the discharge comes to be of small account.

In cases where the treatment succeeds in its object the discharge gradually decreases in quantity, and the intervals between the dressings become longer as the case proceeds towards cure.

Here is a child with lumbar abscess who has been some weeks under treatment, and we will now remove the dressing, with the usual precautions. You will observe, if you will be good enough to smell the gauze which I remove, that though it has been in contact with the discharge more than a week, it is quite free from any unpleasant odour. In this case it is only necessary to cleanse the skin with a little watery solution of carbolic acid, to cleanse and still further shorten the drainage-tube, to replace it, and to apply a fresh piece of the gauze dressing, which may remain undisturbed for some days.

It may seem scarcely necessary for me to caution you that you must not wait until the smell of putrefaction is perceptible, to change the dressing. But I call your attention to this, as I know that some suppose that they are fulfilling Mr. Lister's directions, who consider that it is time enough to change the gauze when the parts begin to stink.

The dressing should always be at once changed if the discharge has soaked into it sufficiently to appear at the free edge of the gauze at any point in contact with the external air. As a rule, the change should be made before this is likely to occur, since putrefaction may commence in the discharge in the outermost layers of the gauze, and may thence spread to the deeper parts.

In opening a deep abscess or a joint cavity under the antiseptic spray, if there be a possibility of wounding any vessel that may require a ligature, it is well to cut down deliberately into the cavity, so that if a vessel has to be secured, this can be done before opening the abscess or joint. Of course, all ligatures employed should be of carbolised catgut.

In the antiseptic treatment of operation wounds as distinguished from wounds made for the evacuation of matter, the same precautions are taken as described above. The instruments, sponges, sutures, the surgeon's fingers, the part operated on, are all cleansed with a watery solution of carbolic acid; all the manipulation is conducted under the spray, and all vessels are secured with carbolised catgut.

Great care must be taken to provide a free escape for wound secretions by drainage-tubes, since the stimulating action of the carbolic acid on the freshly cut surface excites a very free secretion, which must on no account be allowed to collect within the wound. Mr. Lister directs special attention to this source of mischief, and advises that the dressing should be, as a rule, changed the day following the operation.

I venture here again to remind you that Mr. Lister does not claim a certainty of success in the antiseptic treatment of operation wounds, unless he has to deal with the unbroken skin. If sinuses already exist, unless they be the sequelæ of abscesses that have been treated antiseptically throughout, it is not possible to destroy with *certainty* the sources of putrefaction that may lurk in their recesses. I do not say that wounds and sinuses long exposed to the air may not be rendered aseptic by the injection of a solution of chloride of zinc, or by the removal of the vascular lining of the sinuses by scraping, but you must remember that there is no certainty of success, and thus it is that the antiseptic method is inapplicable to many cases of resection of the larger joints where sinuses communicating with articular abscesses or carious bone form so frequent a complication.

In my next lecture I propose to give you some of the results of the antiseptic treatment as carried out by Mr. Vernon under my directions.

ON DEFECTIVE UTERINE INVOLUTION AND ITS PATHOLOGICAL BEARINGS.

BY EDWARD JOHN TILT, M.D.

IN a paper on the Prevention of Uterine Diseases, read in 1872 at the meeting of the British Medical Association, I attributed to defective involution of the womb a much greater part in the production of its diseases than had been admitted. I spoke of defective uterine involution "as the substratum of uterine diseases, and as the soil on which they grow." My experience of the last few years convinces me that there was no exaggeration in that language, and that to a great extent defective involution is the workshop of uterine pathology.

The perfect understanding of defective involution presupposes the knowledge of the natural history of uterine involution; and if this be still very incomplete, it must be remembered that it was only within the last thirty years that obstetricians have thought it worth while to pay any attention to the subject. They are not even agreed on the time required for the completion of the process, for while

Smellie estimated it at three weeks, Scanzoni says it requires sixteen. Most gynæcologists think two months to be the time required, in which case the muscular structure of the womb would be renewed about the time when the lining membrane of the womb has been reproduced. With regard to uterine involution after abortion nothing is known except that its progress is slower after premature delivery. For a description of the anatomical phenomena of normal uterine involution, I refer to Dr. Arthur Farre's admirable article on the Uterus in "Todd's Cyclopædia," and for a study of its rate of progress, to a paper by Dr. Serdukoff.* For my present purpose it will suffice to remind the reader that, although the contraction of muscular fibre may help the process, uterine involution depends on the conversion into fatty products of no longer wanted muscular tissue and on the disposal of these products by the blood, while gradually a new womb is reconstructed upon the original pattern. Uterine involution should partake of the slowness, the steadiness, and the painlessness of chemico-vital processes, and instead of being promoted, it is interfered with by after-pains, the spasms and cramps of the puerperal womb. This normal rate of involution may be exchanged for one so rapid that Schroeder has seen it set up fever, and powerful enough to remove most of the muscular tissue, so that the walls of the womb were found no thicker than those of the intestine. This *super-involution* of the womb is so rare that I have not met with it, whereas *defective uterine involution*, or *sub-involution*, is of frequent occurrence, and the object of this communication is to show how it originates and fosters uterine diseases.

The time allotted to uterine involution should be understood as dividing itself into two periods. At first there is a rapid decrease in the size of the womb, although during the first few days after labour there be no parallel decrease of weight. This period may be roughly estimated at a fortnight, during which defective involution is caused by the serious diseases that obstetricians have then to contend with; and they also know this defective involution as a cause of post-partum flooding, and of that absorption of putrid matter which leads to puerperal lymphangitis and phlebitis. To this period I refer the cases that have chiefly struck Dr. Arthur Farre, who describes "involution as arrested without inflammatory action, so that the uterus remains undiminished in bulk, its fibre uncontracted, and its tissues unrenovated for several weeks or months after labour, the soft flabby organ being easily felt above the pubes, reaching sometimes as high as the umbilicus; while its cavity, tested by the uterine sound, may measure several inches in depth."† I have only met the womb as thus described during the first fortnight of puerperality. After that, and more particularly after menstruation has occurred, it is gathered up into a more or less consistent and enlarged ovoid. Some of the causes that interrupt involution in this first period do so in the second period, which may be said to extend over six weeks. I have already mentioned premature labour as a cause of defective involution; the undue prolongation of labour is a much more potent cause. My assertions as to this have been confirmed by Dr. Goodall‡ and by Dr. Serdukoff. Involution proceeds at a slower rate in oldish women and in those confined during the last decade of reproductive life. Every variety of puerperal fever checks uterine involution, even if the womb be not faulty. Any kind of uterine inflammation checks uterine or peri-uterine involution, and the check is proportionate to the extent of the disease. Lastly, defective involution may occur without apparent cause, and is then to be attributed to something wrong in the innervation of the womb, or to an all-pervading general state of debility.

Debility should be the first thought of the practitioner, as a frequent cause of defective involution, for the early exhibition of some preparation of iron often visibly improves the appearance of the patient, and by dispelling uterine congestion it promotes involution. When, however, strength does not follow the use of tonics, and when, a few weeks after delivery, the patient complains of bearing-down sensations, pelvic distress, and muco-purulent or bloody discharges, their cause should be ascertained by a carefully made examination. If, on the contrary, the beginnings of uterine disease are overlooked, they take root in an imperfectly involuted womb, and the patient is likely to become a confirmed invalid with a subsequent history of deranged menstruation, miscarriages, premature deliveries, and bad recoveries. I often trace long years of perfectly preventable misery to the injudicious management of a bad getting up, so I consider defective involution to be most frequently caused by some form of post-partum uterine inflammation. The frequency of this, under a mild form, is admitted by many pathologists, and lately by Dr. Fordyce Barker in his work on Puerperal Fever. Still more recently Dr. Serdukoff has satisfied himself by clinical observation that involution is checked by metritis in proportion to its intensity. Sometimes it is endometritis, particularly when it has been necessary to peel away the placenta. In such a case an amount of laceration that would have soon healed up if the womb could have properly contracted may become a serious matter, if in an unhealthy woman the womb remain involuted. Most frequently, however, involution is checked by the bruising and laceration of the cervix uteri. This often repeated statement of Dr. H. Bennet's and of mine has been amply confirmed recently by the late Dr. Phillips, who, in recording his experience at Guy's Hospital, estimated the frequency of cervical laceration at 10 per cent. of ordinary labours, and as the rule in tedious labour; and Dr. Atthill, of Dublin, also admits that cervical laceration, as the result of labour, is frequently overlooked. No doubt most of these lacerations heal by first intention in healthy women, but when they are unhealthy or the rent extensive, as after the unskilful use of instruments, the sore festers and becomes a centre of congestion and inflammation, which arrest involution.

When these lesions are recognised and properly treated in the first months of puerperality, suspended involution is resumed, and the womb shrinks to its right size; not so when these lesions have been overlooked and allowed to proceed unchecked for a year or longer, for surgical treatment of the cervix will only be partially successful, and the body of the womb may remain too large. Indeed I sometimes infer the presence of defective involution from the fact of good surgical treatment having only been partially effectual, as in the following case:—

Mrs. C—— is a well-proportioned woman of twenty-six, who had always enjoyed good health, notwithstanding tubercular family antecedents. She married at twenty-two, was delivered by the forceps eleven months afterwards, and made a good recovery. Thirteen months after the birth of the first child she was confined of a second, after two hours' labour. There were no marked pelvic symptoms while she kept her bed, but so soon as she began to try to get about she suffered much from bearing-down pains, back pain, vaginismus, muco-purulent discharges, nervousness, and general debility, which precluded nursing. This was found by a provincial practitioner to depend on inflammation and ulceration of the cervix and vagina, and he treated her very judiciously during seven months, and then I was consulted. I found the patient better in every way; the cervix was of the average size, and bore the impress of a recent application of potassa fusa cum calce. The body of the womb was slightly retroverted, and seemed about twice its right size to the finger in the vagina. The womb had an even outline, was painless to pressure, and a wax bougie easily entered the uterus to a depth of above four inches. In this case there was no record of red or brown vaginal discharges, nor of the acrid serous discharge of internal metritis; so I take it to be a case of defective involution caused by cervical inflammation, which confirmed it. I first depleted the womb by leaving in contact with the sore surface a dossil of cotton wool soaked in glycerine, and I afterwards well swabbed the cervix three times a week with tincture of iodine. Alum and zinc injections were prescribed; large doses of bromide of potassium were given at first, and then strychnine and iron. After six weeks of this treatment, the womb appeared healthy, the wax bougie measured three inches instead of four inches; strength had been gained, and four months after she left town I heard that she continued well.

When delivery is followed by a long-continued state of great debility, unattended by pelvic pain or by any cha-

* Contributions to the Determination of the Diminution of the Uterus after Delivery, Edinburgh Medical Journal, vol. xx., May, 1875.

† Todd's Cyclopædia, p. 709.

‡ Treatment of Puerperal Diseases at the Preston Retreat, Philadelphia, 1874.

racteristic vaginal discharge, a practitioner may well be excused for not having examined his patient, although the inability of explaining this chronic exhaustion by diarrhœa, or expectoration, or by profuse sweats, should lead him to suspect, that as this exhaustion originated in delivery, it might be kept up by something amiss in the womb. This long-continued exhaustion is sometimes caused by uncomplicated defective uterine involution, as in the following case.

Mrs. W—— is a well-formed, healthy-looking lady, and is now twenty-six years of age. She had enjoyed good health, and married at twenty-three. She had a child nine months afterwards, then a severe attack of uterine inflammation, and before recovering from this, she became pregnant, about two months after delivery, for the second child was born eleven months after the first. She went on well and without a bad symptom till it was time to get up, and then she found she was too weak to stand, and during the following ten months her time was divided between bed and sofa. She was not hysterical in any sense of the word; she wished to be up and doing, but she could not walk or stand, and the debility persisted, although there was nothing tangibly wrong about her. She slept well, took a fair amount of food and wine, had judicious tonics, and did not lose flesh. She had not been able to nurse. I found a large flabby cervix, which admitted the first phalanx of the indicator; the body of the womb was regularly enlarged, painless to pressure, and moderately retroflexed. The wax bougie entered to the depth of over four inches. What I could see of the lining membrane of the cervix was very red. That was the only thing I found in addition to a very patulous os uteri, and defective involution. Possibly the entire lining membrane of the womb was as red as the part I could see, but I rather considered this to be a congestive state caused by defective involution than the fag end of endometritis, of which there had been no symptoms. Twenty months of incessant labour, either physiological or morbid, was too much for the womb in this case. Its tissues were paralysed, and the defectively involuted womb reacted unfavourably on the spinal cord for about a year. In this case I freely used, twice a week, a strong solution of nitrate of silver inside and outside of the cervix, with the object of starting contraction by a local irritant. The patient was ordered alum and zinc injections, bromide of potassium at night, sulphate of quinine and extract of nux vomica in pills, and a stimulant embrocation to the abdomen. I followed this treatment for about a month without observing any amendment, till one day I noticed that the os uteri was very properly and firmly contracted. I suppose that this was an indication that the whole body of the womb was waking up to healthier action, for the patient began to mend from that time, and gradually recovered the power of walking. When she left town the cervix had its right consistency, the body of the womb was smaller, and the wax bougie measured about an inch less than it did three months before. Four months after she left town Dr. McClintock found the womb in a healthy condition.

In many of these long-standing cases of defective uterine involution the result is not so fortunate, for the womb never returns to its right size unless by the better management of uterine involution after another confinement.

From what precedes it appears that defective involution, to become apparent, requires to be associated with some other pathological condition; that by itself it is seldom a disease, but much more frequently the enlargement of the area in which a disease may originate, be it congestion, inflammation, ulceration, a polypoid or other growth. Moreover, defective involution not only magnifies the area of uterine disease—it makes it last longer and promotes relapses. The larger the womb, the greater its blood-supply, the more eccentric will be its blood-fluctuations, and the more difficult it will be to cure disease grafted on such a womb. Uterine involution being checked, there is a more or less extensive bag, with walls in a transitional state. The growth of the new muscular fibre may not proceed *pari passu* with the decay of the old; while the cervix has nearly recovered its right size and consistency, fatty degeneration may proceed too fast in the median region of the womb. This softness and pliability of the uterine walls clearly explain the frequent rise of post-partum uterine flexions; whereas in the nulliparous womb the cavity is linear, the walls singularly firm and thick—it is extremely rare to find them softened,—so there is no pliability of walls to account for flexions of the virgin womb. Dr. G. Hewitt has lately stated that in young women of a delicate constitution there is not unfrequently a considerable softening of the virgin womb, the result of the general want of tone; but until a statement so contrary to my own experience is confirmed by other observers and by the teaching of the dead-house, I shall be disposed to fear that Dr. G. Hewitt's finger has been unconsciously biased by the desire to find so satisfactory an explanation of uterine malformations of the virgin womb.

Diagnosis.—I have already said that a soft flabby mass extending from the pubes to the umbilicus is a form of defective involution to be only observed in the earlier part of puerperality; that, generally speaking, after the third week the enlarged womb is to be felt well gathered up above the pubes. A vaginal examination gives the impression of the womb being larger than it ought to be, and its size may be more accurately estimated by a rectal examination. A still more correct measurement may be taken by means of a wax bougie, for, as in a womb of the right size, it should be brought up at a depth of two inches and a half. If, after parturition, the bougie measures from three and a half to five inches, the excess of length must be attributed to an enlargement of the body of the womb, unless it can be explained by unnatural elongation of the cervix. From what I see and learn, I believe the uterine sound is often used to the detriment of the patient, and I will remind junior practitioners that during the two months of normal uterine involution, and for longer when it is defective, the walls of the womb are of a yellower colour, of a more fragile texture, and are therefore more liable to be perforated. A wax bougie No. 4 takes the measure well, and can do no harm.

I have something to add about the treatment of defective uterine involution, but I must reserve it for a concluding paper.

Seymour-street, Portman-square.

A NOTE ON SENILE PNEUMONIA.

BY JAMES GREY GLOVER, M.D. EDIN., &c.

THERE has been a very satisfactory advance of knowledge of late years in regard to acute pneumonia. This remark applies to our knowledge of its natural course, its seat, its tendency *not* to cause death, when primary, occurring in subjects previously healthy and not old, and when not treated antiphlogistically or in any other way extremely. This fact is the more important, as pneumonia represents the whole class of acute primary inflammations, of which it is one of the most common, as it used to be, if it is not still, the most fatal. The writings of Dr. John Hughes Bennett on pneumonia, based as they are on a very large and accurate clinical experience, and showing a splendidly successful result of treatment, are of the greatest value, and they do great honour to English medicine. Since then Dr. Wilson Fox has well sustained the credit of our literature on this subject by his able exposition of it in his article—probably the best systematic account we have—in "Reynolds's System of Medicine."

I have nothing to add to these accounts of the subject in general. Like all other practitioners, I am struck with two features of the disease: first, its tendency to terminate in a crisis—especially a sweating crisis—days before the disappearance of the physical signs of consolidation; and secondly, its tendency to terminate favourably when not overtreated. My simple object in the present note is, by the record of three recent cases, to encourage a hope that the progress of time may justify the application of these two propositions to the case of pneumonia in old people. Old people have been rather excluded from the benefit of our more hopeful views of the disease. Dr. Wilson Fox quotes Pras to the effect that of 129 cases whose age exceeded sixty, 77, or 59 per cent., died. In a table of 2618 cases, by Huss, from which Dr. Fox quotes, there are only 4 cases between seventy and eighty, of which 2, or 50 per cent.,

died. In Dr. Bennett's marvellous table of 125 cases of simple acute pneumonia without a death, there is but one case at sixty and but one at seventy. He gives no other cases above sixty but these. These figures seem to show that the disease is not very frequently seen at high ages—at any rate in hospital practice.

I happen to have seen within the last few months, in private practice, three cases of pneumonia in female patients at the respective ages of seventy-five, seventy-nine, and sixty-seven. These have all recovered, though they were all very ill; and I confess that their recovery—perhaps partly due to their sex—surprised me and gave me new faith in the chances of recovery and in the use of a certain line of treatment in such cases. The cases were briefly as follows. I only give such details as indicate the nature of the case.

Case 1.—Mrs. M——, aged seventy-five, had, on the 15th December, a prolonged and severe rigor. At my first visit there was little to be made out, in connexion with this, but a loud bruit nearly all over the chest. The next morning the temperature was 100·2°; in the evening of this day 101·2°, with an approach to bronchial breathing at the middle part of the right chest posteriorly. The next morning there was a temperature of 102°. This temperature was never exceeded. On the fifth day the bronchial breathing and dulness on percussion at the above part were marked. There was some wandering at nights. From the fourth day, for four or five days, the pulse was more or less intermitting. On the sixth day of the disease, in the morning, the temperature was 100·2°, and the pulse 102 and intermitting. On the seventh day, the temperature was 99·8°, the pulse continuing quicker than it should be, and on the evening of this day I had the pleasure of finding the temperature 98°, the pulse about 90 and less intermitting. The progress of recovery was slow. There was a slight bedsore. The dulness and bronchial breathing continued at least ten days after the temperature fell. Nervous symptoms, particularly sleeplessness at night, which had been somewhat troublesome before this illness, persisted; but she gradually recovered her ordinary strength and health, and is now very well.

The treatment was simple. Confinement to bed of course. The continuous application of linseed poultices to the affected side; citrate of potash in solution, with a few minims of spirits of ammonia and nitric ether; beef-tea and milk, and after the first two or three days, two or three spoonfuls of brandy, or a corresponding amount of sherry every three hours.

Case 2.—Mrs. M——, in her seventy-ninth year, had a rigor on the 5th of March. Sent for me on the 6th. Found her with a temperature of 101°; severe cough; harsh respiration over the upper right apex posteriorly; and the pulse, as is frequently, if not habitually, the case with her, intermitting. The tongue had the genuine pyrexial fur. The treatment was very much as in the previous case. On the 9th of March a little champagne was ordered. On the 16th she was convalescent, though the pulse was intermitting. Though the breathing was never distinctly bronchial in character, it was distinctly harsh, and the attack had all the essential clinical characters of pneumonia of the apex, and was creditably surmounted at seventy-nine.

Case 3.—I was asked to see Mrs. D——, aged sixty-seven, late on the night of May 29th, 1876. Found her feverish, and with rusty sputum, but could not get any distinct history of a rigor. The next morning, on the 30th, the temperature was 102·4° F., there was decided bronchial breathing, increase of vocal resonance, and dulness at the middle of the right lung posteriorly. In the evening the temperature was 102·8° F., the sputum viscid and rusty. On the morning of June 1st the bronchial whiff had given place to large crepitation. In the evening the temperature was 103°, and there was headache and much distress. I attributed this increased temperature and discomfort partly to the effect of four grains of carbonate of ammonia, which I had added to her mixture in the morning. I now discontinued this, and returned to a simple mixture of citrate of potash, nitric ether, and a few minims of ipecacuanha wine. For some days following she continued ill, with more or less fever, tongue thickly furred, and sometimes dry, a good deal of pain on the affected side, and some looseness of the bowels. On the evening of June 4th she felt very ill. Temperature 100·8°; pulse 108; breathing tight, and coughing painful; tongue thickly furred and dry; bowels loose. To have a little ice to suck, and a mixture with aromatic confection and bismuth. On the morning of the 5th temperature was 99°; the edges of the tongue were cleaning. She had found the ice a great luxury. In the evening the temperature was 99°. She "feared she was no better," but her dress was wet with perspiration, and the pulse slower, though intermitting. On the 6th at 10 A.M. the temperature was 97·6°. The pulse was very irregular, the heart beats being about twice as many as the pulsations of the radial. This want of correspondence between the heart and the pulse constituted a marked and somewhat anxious feature of the disease till the 9th, when it is noted that the pulse was 72, without irregularity, and in perfect harmony with the cardiac pulsations. During this period brandy was given with water, at the rate of a dessert-spoonful every three hours. The only troublesome symptom now was night cough, greatly relieved by a five-grain pill of ipecacuanha and squills. On June 13th the note is, "Râles over the right side posteriorly; feels weak, tongue clean." A little quinine was ordered, with a few minims of diluted sulphuric acid. On the 15th the respiratory murmur was clear, and free from râles, and the patient felt stronger. From this time the recovery needs no comment. [Since writing the above my patient has had, but is now recovering from, an attack of subacute rheumatism, affecting the hands, wrists, and shoulders. She had so far recovered from her pneumonia as to leave her room, and has now no chest symptoms but a slight cough. Her pulse is regular, about 70; temperature 98°. She has never had rheumatism before; but a sister has suffered much from it. The feet are not affected. It will be noticed that between the attack of pneumonia and this rheumatic condition there was a clear interval of defervescence and convalescence of nearly a fortnight.]

Remarks.—I need add little to the above record. My belief is, that during the pyrexial period the best treatment is a cooling and sustaining one—that of simple salines with beef-tea, milk, water; and, if there is great heat or feeling of heat, a little ice may be swallowed from time to time. Over the affected part I invariably order a large linseed poultice to be kept, and renewed every three or four hours. When the period of crisis comes, no time should be lost in giving such moderate doses of stimulant as seem to help, and not to heat, the patient. The thermometer and the pulse together will guide the judicious practitioner in regard to the dose. I have seen nothing to indicate the good of such quantities of stimulants throughout the disease as Todd used to give; but facts of the kind above given, and the sensations of the patient, leave little room to doubt that a moderate allowance of alcohol at the time of crisis, or a little before, is to be regarded as a part of the "food convenient" for such cases. The prostration of the patient at this time, at whatever age, is generally very great, and, in elderly people especially, very apt to be fatal.

Highbury.

ANEURISM OF THE ARCH OF THE AORTA, COINCIDENT WITH SEVERE SYPHILITIC SYMPTOMS.

By FREDERICK ENSOR, M.R.C.S.

Taken in conjunction with the recent discussions, as to the part played by the poison of syphilis in the production of those occult changes which, occurring in large arteries, result in aneurism, I think the following case worthy of report:—

F——, aged forty-five, a discharged soldier, was admitted into the Port Elizabeth Provincial Hospital on the 1st of June, 1875. He confessed to having had venereal disease, and drunk very freely; had large, unhealed, rupial sores on the forehead, back, arms, and legs; had a bad cough for four months, which had got worse lately; had a prominence on the chest, to the right of sternum; dulness on percussion over an area of about two inches obliquely across the sternum, with a visible pulsation; radials even; heart's

apex bearing two inches and a half below the nipple; pulse 120. Percussion-sound not dull over bases of both lungs. Bronchial cooing over both lungs behind; no expectoration, no dysphagia; pain over sternum worse at night. A bruit and a friction sound over the prominence. "Locomotive pulse" in brachial arteries; cannot lie on his left side. Diagnosis: Node pressing back on a dilated aorta—i. e., no innominate aneurism, no distinct aneurismal pouch. Ordered a mixture of iodide of potassium, with small doses of morphia.

July 20th.—Area of dulness not increased, but impulse more marked. Has taken a drachm of iodide of potassium daily, with small doses of morphia and tincture of aconite. Has had bad nights from dyspnœa, not pain; distinct to and fro sound over the most prominent part of the swelling, which is between the cartilages of the second and third ribs, to the right of the sternum.

Sept. 15th.—Tumour decidedly less. Sleeps better. No cough. Has taken a scruple of iodide of potassium, four minims of tincture of aconite, and twenty minims of liquor morphiæ in one ounce of water, twice a day for the last month. Eruptions on the body all healed.

Oct. 3rd.—Feels much better. Swelling on sternum not so marked. Bruit less. Is short-winded on exertion, but would like to go out of hospital.

Jan. 19th, 1876.—Re-admitted with urgent dyspnœa. Tumour more diffuse. Ordered previous mixture.

Feb. 1st.—Percussion dull all over the right lung in front, clear over left lung. Oval swelling to right of sternum more prominent, and pulsation distinct. Percussion clear over left lung behind, dull over the upper two-thirds of right lung behind. Respiratory murmurs harsh over both lungs behind; total absence of respiratory murmur in the right subclavicular region. Head of observer lifted on the stethoscope at each heart beat. Dyspnœa prevents sleep. Cough spasmodic and laryngeal in sound. No headache. Right arm commenced to swell a week ago. Pulse small, weak, and intermits occasionally. Ordered, chloral hydrate, ten grains; iodide of potassium, ten grains; infusion of gentian, one ounce: every six hours.

10th.—Says he likes the mixture, thinks it soothes him better than the aconite. Both arms swelled. Dozes off sitting up; cannot lie down.

March 20th.—Complains of much pain to-day over the sternum. Both arms œdematous. This has been lessened from time to time by free purging with "white meat." Skin feels thinner over the tumour. Heart's action tumultuous. Ordered tincture of aconite, four minims; solution of acetate of ammonia, two drachms; nitrate of potash, ten grains; in one ounce of water: every four hours.

April 26th.—Has been in great distress—quite unable to lie down. Head and face purple with congestion, both upper extremities tight with anasarca; says "his head feels like a blacksmith's shop with the noise and hammering." Morphia given at night; gives no relief—in fact, makes him worse by lessening the urine. The aconite mixture relieves the noise and hammering, but makes the pulse so intermittent I am obliged to omit it; the only relief is active purgation with the "white meat," sulphate of magnesia, &c., and this only lasts for a day or two.

27th.—Died comatose, in semi-erect posture.

Necropsy, eighteen hours after death.—Head and neck and upper extremities œdematous; legs not so. White scars or marks of healed rupial sores in various parts. No appearance of tumour on the chest. Pericardium thickened, and adherent to back of sternum and left ribs. Erosion of sternum opposite third rib. Heart hypertrophied; no white spots on surface; lying free in its sac. Right lung compressed by a tumour. Left lung totally adherent to left wall of chest. Removed the lungs and heart *en masse*, when it was found that the whole of the arch was involved in an aneurism the size of a small cocoa-nut. The innominate artery and left carotid and subclavian not involved, they rising free and clear from the aneurism. Aortic valves very slightly thickened. No calcareous deposits anywhere; the aneurism terminates abruptly at the orifice of the left subclavian artery. Right bronchus flattened by the aneurism. Liver very large and gorged with blood; no signs of cirrhosis, but its capsule was marked by a few white irregular lines which were tough on section; a few similar marks were also on the capsule of the kidneys, which were otherwise apparently healthy. The urine had been tested from time to time, but found non-albuminous.

Reviewing this case, I think it is manifest that syphilis is a very important factor in the causes of arterial degeneration. Taken in conjunction that the liver presented no marked evidence of changes produced by alcohol—i.e., it had not, as it is termed, a nutmeg section,—that its capsule was not corrugated or contracted, but that, on the contrary, the organ was distended to a large size by the impediment to circulation through the lungs; that there were no white spots on the heart, which lay free in its sac; that the aortic valves, and other parts of the aorta, were smooth and free from any appearance of gouty change,—I think one is driven to the conclusion that syphilis was the cause of the changes in the coats of the artery resulting in aneurism. The apparently healthy condition of the innominate and other large arteries seems to point out that the syphilis poison had been concentrated in the arch; and the abrupt termination of the aneurism at the point where the left carotid is given off, with the natural smooth surface of the rest of the aorta, was very striking.

In cases where aneurism is accompanied by a strong gouty diathesis, where the face of the patient, with his prematurely old look, grey hair, and injected cheeks, points to fatty and calcareous degeneration and brittle arteries, I think that the operation of distal ligature of carotid and subclavian, or carotid alone, for arrest of aneurism, offers very little hope of doing good. On the other hand, when these signs are absent, and from the history and appearance one can judge that the arterial change is due to the effects of syphilis chiefly, perhaps assisted by alcohol, in these cases, I think, the surgeon may interfere, and, by ligature of the carotid, impede the blood-current, and perhaps strengthen the sac by fibrinous deposit. Interesting as the pathological riddle may be to watch from month to month, one of these distressing cases is one of the burdens the physician has to bear; he feels how impotent to save are his remedies, and he may well turn to the surgeon and ask if his art cannot come to the rescue, if not to save, at least to prolong life and ease pain; but the diagnosis is confessedly difficult. It is with the hope of assisting to work out the question of operation, that I venture to lay the above case before the profession. This aneurism, of course, is only of interest as it involves the question of syphilis. I hope to send the specimen by an early opportunity to the Museum in Lincoln's-inn-fields.

Provincial Hospital, Port Elizabeth, S. Africa.

THE CURE OF DIPHTHERIA.

BY DR. CESARE CIATTAGLIA, OF ROME.

Medical Notes, translated by
J. P. STEELE, B.A., M.D. Edin.

I PROPOSE to publish some facts drawn from my experience in treating diphtheria; facts relating to the internal use, in large doses, of chlorate of potash, and to the local application of hydrate of chloral.

It is beside my purpose to dwell upon the genesis and nature of diphtheria, nor do I intend to explain the action of the two above-named drugs in that particular affection. I reserve myself for another paper on the nosogenic and therapeutic features of the whole subject.

The internal use of chlorate of potash in diphtheria is not new. Vogel recommended it so long ago as 1860, in half scruple or one-eighth of a scruple doses, dissolved in water, in the twenty-four hours, for children from one to five years of age.

The chloral, as far as I know, has not been prescribed before Ferrini, who, during last year's diphtheria epidemic in Tunis, observed its efficacy when smeared over the false membranes in a solution of from two to three grammes of the chloral hydrate to from fifteen to twenty grammes of glycerine.

From 1870 I had employed chlorate of potash combined with the local application of phenicated alcohol or of a weak solution of nitrate of silver, and I was generally satisfied

with the success of such treatment. My friends and colleagues, Drs. Rosco, Grana, and De Rossi, confirmed the efficacy of the chlorate of potash, particularly in the diphtheria epidemic of 1872 in Carpineto Romano, Montellanico, and Anagni (province of Rome), when combined with the perchlorate of iron or the nitrate of silver applied locally. For these latter I have lately substituted hydrate of chloral, and it is the advantages it has yielded, and the desire to have these confirmed by other practitioners, that induce me to publish my experience.

The dose of hydrate is four grammes, dissolved in twenty grammes of glycerine, and applied with a camel's-hair brush, three or four times a day, to the false membranes. The chlorate of potash I have exhibited in doses of from ten to fifteen grammes a day dissolved in 140 of water, to children of from three to six years, and of thirty grammes to adults. With these medicines I have always combined a tonic and restorative diet.

One fact worthy the observation of practitioners is this: the moment the chloral and glycerine was applied the false membranes ceased to spread, while the characteristic fetor from the mouth entirely disappeared on the first or, at latest, the second day of application. I may add that the chloral, as dissolved in glycerine, besides remaining longer in contact with the diphtheritic surfaces, produces less of the burning sensation than when dissolved in water.

CASE 1.—A. N——, a little girl aged seven, of delicate constitution, complained, on the 2nd February last, of slight sore-throat. On looking at the fauces I found two diphtheritic membranes on both tonsils of the size of two sixpenny pieces. There was no fever, no constitutional disturbance, not even engorgement of the cervical glands. I confined my prescriptions to simple gargles of phenicated water. Next day the membranes were more diffused, the fauces intensely red and swollen, and the engorgement of the glands increased. Temperature 39° C.; pulse 110; urine normal. I ordered at once fifteen grammes of the chlorate of potash, dissolved in 140 of water, to be given, one tablespoonful every two hours; and I smeared, thrice a day, the membranes with the chloral and glycerine. On February 4th the temperature was 40° C.; pulse 125. The membranes had ceased to spread. The urine presented traces of albumen. I continued the same treatment. In the afternoon I found the fever slightly abated; the fauces perceptibly less swollen and less red; the engorgement of the glands had also diminished, and the child was rather relieved. On the 5th, the fever had gone; the membranes had almost entirely disappeared from the affected surfaces. I reduced the exhibition of the solution of chlorate of potash to one tablespoonful every three hours, and the application of the chloral and glycerine to only twice a day. On the 6th, the improvement had continued. Engorgement of the glands scarcely visible, the urine normal, and the child more calm. On the 8th, the membrane on the right tonsil remained, but was less in extent. On the 10th the cure was complete. All next day I continued the chlorate of potash (one tablespoonful every four hours), and I ceased to apply the chloral and glycerine.

CASE 2.—On the afternoon of the 20th of March of this year I was called to Madame S. G., aged thirty, of a lymphatic temperament and sound constitution. By her account she had that day, while in her usual health, felt a burning, almost instantaneous, pain in the left side of the throat, for which she could give no reason. She tried to think nothing of it, till an aggravation of the symptoms, with the supervention of fever and rigors, made her send for me. When I saw her I found febrile heat, 39°, a guttural voice, engorgement of the tonsils and submaxillary glands, urine normal. The throat, on examination, showed a membrane on the left tonsil the size of a halfpenny. I ordered twenty grammes of the chlorate of potash in 140 of water (one tablespoonful every hour), and gargles of phenicated water. On the 21st March the fever had risen—the temperature was 40° C., the pulse 120; there was agitation and dyspnœa; the membrane had covered all the posterior surface of the mouth; the breath was foul; some points of the membrane had become gangrenous. I smeared the latter with the chloral (four grammes) and glycerine (twenty grammes), and repeated it thrice a day, with the regular solution of chlorate of potash, and also gargles of the same. On the 22nd the fever had rather subsided; the thermometer marked 38°; the pulse was 110°; the urine retained its normal character; the membranes presented no change; the feeling of oppression had diminished. With the treatment I combined a tonic and restorative diet. On the 23rd I found Madam S. quite apyretic; the membranes in the morning were still adherent, but in the afternoon they were almost completely detached; no fetid breath; the voice more clear; the general condition of the patient much improved. On the 24th there was nothing noteworthy, and I applied the chloral and glycerine only twice. On the 26th there was a very perceptible improvement, and on the 28th I suspended the application of the chloral, the fauces no longer presenting any trace of false membranes. I continued the chlorate of potash every three hours till, on the 30th, Madam S. was quite cured.

CASE 3.—On the 15th of April I was called to see a little girl of five years and feeble constitution. The evening before she had a fever attack, with slight frontal headache. When I saw her the fever was still present, but slight. On examining the throat I saw on the left tonsil a membrane about the size of a halfpenny. The engorgement of the glands was not very perceptible; the urine was normal. I prescribed regular treatment, and next day the membrane had shrunk by one half, and the engorgement was so reduced as not to be recognisable. The fever, however, was present. On the 18th the fever had quite gone, and by the 20th the little patient was quite well.

CASE 4.—On the morning of the 17th of April I was called to Madame P. E——, aged thirty, and of delicate frame. Since the 16th she had complained of difficulty in deglutition and profuse salivation. The fauces presented diphtheritic membranes on both tonsils; the engorgement of the submaxillary glands was remarkable. The temperature was 39·5°; the pulse was 120; the urine normal. I prescribed twenty grammes of chlorate of potash in 140 of water, one tablespoonful every two hours, and I smeared the membranes with chloral and glycerine three times a day. Shortly after this local application the pain in the throat diminished and deglutition became more easy. On the 18th there was a slight improvement; the fever almost as high as the day before; the urine still normal. I continued the same treatment. On the 19th the fever had gone; the patient felt somewhat better; the engorgement of the glands was perceptibly diminished; the diphtheritic exudation had in great part come away. On the 20th the patient said she had passed a slightly worse night, but I found no aggravation of the symptoms. On the 22nd the improvement was very marked. Treatment same as before. On the 23rd the fauces were almost free from false membrane. I continued the treatment up to the 26th, on which day the cure was complete.

CASE 5.—A. C——, a girl eight years of age, of weak constitution, fell ill of diphtheria on the 1st of May. All the symptoms were grave. The false membrane covered all the left side of the fauces and the velum pendulum palati; perceptible engorgement of the submaxillary glands; dyspnœa; epistaxis and semi-sanguinolent flux from the nostrils of a most effusive fetor; breath very foul; pulse 125; temperature 40°; urine presented a marked amount of albumen. I immediately brought the patient under the chlorate of potash and smeared the diphtheritic surfaces with the chloral and glycerine. On the 2nd of May, no change but a slight decrease of fever. On the 4th a marked improvement: apyrexia, glands less swollen, respiration easier, epistaxis reduced to one attack, fetor quite gone. On the 5th membranes had in part come away, albumen in urine diminished; the little patient was much relieved. On the 8th the fauces were completely rid of the membranes; no trace of albumen in the urine; pulse, respiration, temperature normal; sometimes a little vomiting had occurred; there was aphonia, and I ordered Ruspini's syrup. On the 10th I left the patient quite well except the local weakness, which, however, I have since ascertained to have disappeared.

CASE 6.—On the 20th of April a boy of four and of strong constitution was attacked with diphtheria. On the left anterior pilaster of the velum pendulum palati I found a diphtheritic membrane of the size of two sixpenny pieces. Fever very mild, engorgement of glands scarcely perceptible, urine normal. The chlorate of potash and the chloral hydrate with glycerine were prescribed for five days, and at the end the cure was perfect.

CASE 7.—A case identical with the above was that of a

girl six years of age, but of lymphatic temperament and weak constitution. I was called to see her on the 24th of April, when a slight fever had declared itself. She did not complain of pain or inconvenience of the throat; there was engorgement of the glands. On the left anterior pilaster of the velum pendulum palati, and extending over the velum itself, I found a diphtheritic membrane, the size of a half-penny. The urine was normal. I adopted the same treatment for this as for the other cases; and on the 25th found the febrile heat 39° C., the pulse 120, the engorgement of the glands beginning to appear, but the membrane shrinking. In the evening the improvement was general, the patient being relieved, and the deglutition—difficult in the morning—returned to the normal condition. On the 30th the little patient, who had been coming steadily round in the interval, was quite well.

CASE 8.—My distinguished friend, Dr. Alberto Rosa, invited me on the 10th of April to see one Cesare S——, thirty years of age, and of good constitution, who, without apparent cause, had been attacked with diphtheria on the 31st of March. Dr. Rosa mentioned that on the first visit—on the 30th of March—there was slight fever and a marked redness of the fauces, accompanied by a scarcely perceptible engorgement of the glands, and by pain, with difficulty of deglutition. These symptoms betokened diphtheria, but for that evening Dr. Rosa confined himself to prescribing astringent gargles. Next morning diphtheria declared itself in a membrane covering the right tonsil to the size of a halfpenny, and in an aggravation of all the symptoms which accompany the disease. The fever had risen to 39°, the glandular engorgement, particularly on the right side of the neck, being especially marked. He ordered sulphate of quinine internally and cauterised the membrane with nitrate of silver. A tonic and restorative diet made up the treatment for the day. By the eighth day the general condition was worse, and when I saw him the patient was reduced to a very low condition. The fever heat was 40° C.; the pulse 125. The throat revealed a membrane of the size of a penny piece, and extending up the posterior aspect of the velum pendulum palati; the glandular engorgement was marked; from the nares came an offensive flux; there was aphonia; and the albumen in the urine was moderate in quantity. I immediately prescribed the chlorate of potash, and the hydrate of chloral with glycerine. On the 11th of April the patient complained of nausea; then he had vomiting and twice fainted. I persevered with my prescriptions. On the 12th the improvement was very perceptible: the fever had declined, the throat was less painful, deglutition more easy. The membrane was still adherent, but had not extended. The urine contained less albumen. On the 14th the progress towards recovery was obvious: no trace of albumen in the urine; no shred of membrane visible. There was still, however, much prostration and anorexia, with restless nights and persistent insomnia. Dr. Rosa continued, for two days more, to prescribe the chlorate alone, with the tonic and restorative diet. Several days thereafter I found the patient quite well.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

CASES OF RHEUMATIC FEVER TREATED BY SALICYLIC ACID.

(Under the care of Dr. SIEVEKING.)

THE beneficial action of salicylic acid appears to have been almost constant in the subjoined cases, for the notes of which we are indebted to Mr. Jackson Gawith and Mr. H. Sworder. Its chief effect was the great relief of pain.

CASE 1.—E. S——, a cook, aged twenty-three, admitted April 28th, suffering from subacute rheumatism. She was taken ill on the 24th, with pain in the shoulders and back; then pain, heat, and swelling of the left knee and foot, and some pain in the chest; and afterwards pain in the left wrist. Never had rheumatism before. On admission, the tongue was furred; bowels constipated; pulse 108; temperature 99·4°. Left knee swollen and painful; right ankle hot and painful. Loss of appetite was complete; and she was quite unable to walk. There was no morbus cordis. Ordered simple diet, milk and beef-tea. After the bowels were thoroughly opened by castor oil, she was ordered twenty grains of salicylic acid every hour for six hours. At 10·30 P.M., after four powders, the temperature was 98·4°, the pulse 88, and there was very little pain; so the other two powders were omitted.

April 29th.—Slept very well; had not slept for two or three nights before. Temperature at 10 A.M. 99°; pulse 120. No pain except on moving the joints; right ankle not so hot and not at all painful; left knee less swollen, and she complained of pain in it only on moving it about pretty freely. She said she felt well enough to be up and running about. Urine: specific gravity 1030; large quantity of lithates; no albumen. Ordered to take two more powders of twenty grains each. Temperature at 10 P.M. 98·4°.

30th.—Slept well. Temperature 99·2°; pulse 100. No pain except a little in the knee; she could move it about freely.—10 P.M.: Pulse 96; temperature 98°.

May 1st.—Slept well. Temperature 98°; pulse 98. Very anxious to get up. Dr. Sieveking, on seeing her, said, "She has no pain anywhere except in the knee, and then only on firm pressure over the outer condyle of the left femur and on brisk movement." Tongue moist and clean; bowels open. She asked for beef-steak.—Evening: Temperature 98·4°; pulse 88.

2nd.—Morning: Pulse 104; temperature 99·2°. As there was no return of heat and pain in right knee, three powders of twenty grains each were ordered.—5 P.M.: Temperature 98·4°; pulse 104. There was much less pain, and she was very hungry.—8·30 P.M.: Temperature 98·6°; pulse 88. 11 P.M.: Temperature 97·8°; pulse 80. No pain whatever.

3rd.—Temperature 98·6°; pulse 88. No pain except on very firm pressure over outer condyle.—10 P.M.: Temperature 98·4°; pulse 100. Ordered fried sole.

4th.—Pulse 100; temperature 98·4°. Feels well. No pain anywhere.

5th.—Morning: Pulse 100; temperature 98·4°. To get up a little.

6th.—Temperature normal. Gets about the ward.

9th.—She went out of the hospital to-day perfectly well.

CASE 2.—Joseph N——, aged sixteen, baker's boy, admitted April 28th, 1876, suffering from subacute rheumatism. Was taken ill two weeks before with pain and swelling of most of his joints; notably, the ankles, knees, and hips.

On admission, there was much pain, heat, and swelling of right knee. The right ankle was hot and painful, but not much swollen; the left knee and ankle had quite recovered. He had also some pain in arms. No morbus cordis. Had had rheumatism before. Temperature 100·6°, pulse 88. Ordered simple diet; milk and beef-tea; twenty grains of salicylic acid every hour for six hours. Bowels were well open in the morning. At 8 P.M., after two powders, temperature 100·2°; pulse 92. Sweats very little. Pain now only present on moving the affected parts; no feeling of sickness.—11.30 P.M.: Pulse 84; temperature 98·6°. Sweating profusely. Very little pain.

29th.—9 A.M.: Pulse 88; temperature 99·2°. Slept very well; very little pain anywhere.—1.20 P.M.: Pulse 84; temperature 99·6°. Very little pain in right knee; can bend it up and allow it to be pulled about without paining him much. Very little pain in the right ankle, a little still in the arms. Urine: specific gravity 1010, slightly acid, no albumen. The salicylic acid to be taken three times a day. 10 P.M.: Temperature 99·6°; pulse 68. Very little pain, except on moving the joints.

30th.—11 A.M.: Pulse 64; temperature 98·6°. No swelling or pain in knee or ankle; can move them about freely; tongue moist and furred.—Evening: Pulse 72; temperature 99·2°.

May 1st.—Pulse 64; temperature 99·2°. No pain worth mentioning; can move his legs and wrists freely; wants to get up.—Evening: Pulse 66; temperature 98·2°. No pain anywhere. Sleeps well.

2nd.—Pulse 60; temperature 98°. No pain. Ordered fried sole for dinner.—Evening: Pulse 64; temperature 98·2°. No pain.

3rd.—Morning: Pulse 80; temperature 99°. Some slight return of pain in knee, so ordered the salicylic acid every hour for three hours.—3 P.M.: Pulse 62; temperature 98·8°. Early this morning he could not bear the tendons of right ham to be touched; they now can be pulled about without paining him in the least. Wants to get up.

4th.—Seems quite well. No pain. Temperature normal. Walks about perfectly well.

5th.—Quite convalescent.

12th.—Discharged to-day cured.

CASE 3.—J. L——, aged twenty-four, porter, admitted on the 28th of April, suffering from subacute rheumatism. Taken ill on the 24th with pain in both hams, in the hips and shoulders; high-coloured urine, &c. Never had rheumatism before; had gonorrhœa two years ago. On admission, he complained of severe pain in the ham and back part of the right thigh, also in the hip-joints; no swelling of knee-joints. The most severe pain, and this was excruciating, was at the back of the right knee-joint among the hamstring tendons. Bowels open; tongue furred; no appetite; no morbus cordis. Pulse 100; temperature 101·2°. Urine acid, sp. gr. 1030, trace of albumen. Ordered simple diet, milk, and beef-tea, half an ounce of castor oil ot once, and followed by twenty grains of salicylic acid every hour for six hours. At 8 P.M., after two powders, the temperature was 101·2°; pulse 104; less pain; sweating profusely; felt a little sick. At 11.30 P.M., having had all the powders, the temperature was 100·4°; pulse 100; pain now hardly worth mentioning; still sweating profusely.

April 29th.—Slept fairly well. Much less pain in knee and thigh, but fresh pain in shoulders. Sweats very much. Temperature 99·8°; pulse 104 (9 A.M.)—1.10 P.M.: Pulse 96; temperature 101·4°. Shoulders very painful. Twenty grains of salicylic acid three times a day.—11 P.M.: Pulse 86; temperature 100·6°. Sweating very much; very little pain; can move his legs about easily.

30th.—Morning: Pulse 84; temperature 100·2°. Very little pain. His right knee may be bent without his complaining of pain.—10 P.M.: Pulse 80; temperature 100·2°. As he had much pain in arms and right leg he was ordered the salicylic acid every hour for three hours. At midnight the pain was much better, and he slept well.

May 1st.—Pulse 84; temperature 99·2°. Can move his legs and arms about pretty freely without pain, and he is now reading in bed. Bowels open; tongue clean and moist. Complains of being very hungry. To discontinue the powders.—10 P.M.: Pulse 72; temperature 99·2°. No pain whatever in legs, a little in shoulder.

2nd.—Morning: Pulse 68; temperature 98·6°. No pain anywhere; right shoulder stiff. Ordered fried sole.—Evening: Pulse 70; temperature 98·6°. Stiffness only in both shoulders.

3rd.—Morning: Pulse 72; temperature 99·2°. Stiffness only in shoulders; no albumen in urine.

4th.—9 A.M.: Temperature 99°; pulse 80. Can move his shoulders freely, but there is more pain in them. Ordered salicylic acid, twenty grains every hour for three hours.—11 A.M.: Pain all gone, and sweats profusely. Temperature 98·2°; pulse 72.—10 P.M.: Temperature 99·2°; pulse 76.

5th.—Morning: Temperature 97·6°; pulse 76; only stiffness in shoulders.—Evening: Temperature 99·2°; pulse 76.

6th.—Morning: Temperature 100·2°; pulse 92. Was up two hours this afternoon.—Evening: Temperature 99·4°; pulse 80.

7th.—Morning: Temperature 99·2°; pulse 76. No pain. Evening: Temperature 100·2°; pulse 84.

8th.—Morning: Temperature 99·6°; pulse 84. Swelling and pain in right hand and wrist. Ordered twenty grains of salicylic acid every hour for four hours.—12.10 P.M.: Temperature 101·2°; pulse 78.—10 P.M.: Temperature 101°; pulse 88. Much less pain.

9th.—Morning: Temperature 100°; pulse 88. Some pain in right wrist. Ordered a blister (three inches by three) to it; ten grains of calomel and colocynth pill, to be taken at night, as well as five grains of iodide of potassium and fifteen of bicarbonate of potash in water three times a day. Evening: Temperature 99·8°; pulse 80.

10th.—Morning: Temperature 99·8°; pulse 100. Only a little pain in right shoulder.

11th.—Some pain in right wrist and finger-joints. Temperature 98·8°; pulse 80.—Evening: Temperature 98·8°; pulse 80. Ordered a diet of two pints of milk. To be up some hours.

12th.—Temperature 98·8°; pulse 82. None the worse for being up; walks about perfectly well; no pain anywhere except a little in finger-joints of right hand.

13th.—Temperature 98·8°; pulse 70; no pain except on firm pressure over finger-joints.

14th.—Gets about well; no pain anywhere.

17th.—He went out to-day quite convalescent.

CASE 4.—Fanny J——, aged twenty-seven, married, was admitted April 29th, suffering from rheumatic fever. She was taken ill on the 23rd with pains in the limbs and chest; the ankles, knees, and hands were particularly swollen. She had loss of appetite, great perspiration, and constipation. Never had rheumatic fever before.

On admission she was in very great pain, and could not be moved without screaming, the knees and ankles being especially painful; there was, however, very little swelling of knees and ankles; the wrist-joints were very hot, swollen, and painful; there was also much pain and heat in the shoulders; no morbus cordis. Temperature 103·6°; pulse 120. She was ordered simple diet—two pints of milk, one pint of beef-tea. Bowels were well opened by some castor oil and an enema, and then, at 5.30 P.M., salicylic acid was ordered in twenty-grain doses every hour, for six hours. Temperature at 7 P.M., 102·4°; pulse 116. There was much less pain in knees and ankles, about the same in wrists and shoulders; she sweated profusely, and still had pain in chest and back. Urine strongly acid, sp. gr. 1030, containing a trace of albumen.—10 P.M.: Temperature 101·4°; pulse 112; no pain in knees and ankles, and very little in wrists; sweated profusely.

April 30th.—Pulse 120; temperature 100·4°. A little pain in knees, and her hands and arms feel very stiff. Can move her wrists about freely; no morbus cordis. To take the salicylic acid three times a day.—10 P.M.: Temperature 100·6°; pulse 104.

May 1st.—Slept very well; tongue less furred; bowels open. Temperature 99·6°; pulse 88; no pain anywhere except in right shoulder; she can move her feet, legs, and shoulders very well (on admission she was perfectly helpless).—Evening: Temperature 99·6°; pulse 84.

2nd.—Temperature 99·2°; pulse 80. As she had some pain in the wrists and shoulders she was ordered three powders of twenty grains of salicylic acid, one every hour for three hours. After the second powder the pain nearly all disappeared.—Evening: Temperature 98·2°; pulse 84. Very little pain now.

3rd.—Temperature 98·4°; pulse 80. Only has stiffness in right shoulder.—Evening: Pulse 80; temperature 98·8°.

4th.—Pulse 80; temperature 99°. Less stiffness.—10 P.M.: Pulse 88; temperature 99°. Slight pain in knees. Ordered broth diet.

5th.—Pulse 84; temperature 98·8°. Only some stiffness in arms. Does not like broth diet, so ordered simple and fried sole.—Evening: Pulse 84; temperature 99·4°. Some pain in right arm and wrist.

6th.—9 A.M.: Pulse 96; temperature 100°. The pain being worse in the right wrist, ordered three powders (twenty grains), one every hour for three hours.—11.30 A.M.: Pulse 88; temperature 99°. Sweating much; less pain.—10 P.M.: Pulse 84; temperature 99·2°. No pain anywhere.

7th.—Pulse 84; temperature 99·8°. Very little pain in the right wrist.—4 P.M.: Pulse 100; temperature 98·8°. Quite free from pain.—10 P.M.: Temperature 99·6°; pulse 84.

8th.—9 A.M.: Temperature 99·4°; pulse 84. As there is a little pain in the right wrist, two powders are ordered to be taken as before.—11.30 A.M.: Temperature 100·2°; pulse 96. No pain now; she is very hot, but not perspiring.—10.30 P.M.: Temperature 99·2°; pulse 84. No pain.

9th.—Pulse 96; temperature 99·8°. Some pain and heat in left wrist. To take the salicylic acid every hour for four hours.—10 P.M.: Temperature 98°; pulse 80. No pain.

10th.—Pulse 80; temperature 98·4°. No pain.—Evening: Temperature 98·2°; pulse 84. Ordered five grains of iodide of potassium and ten of bicarbonate of potash in water twice a day.

11th.—Temperature 99°; pulse 104. She got up in the evening, and walked about pretty well.—Evening: Temperature 99°; pulse 100.

12th.—Temperature 100°; pulse 84. No pain anywhere.—Evening: Temperature 98·2°; pulse 84. Ordered one ounce of quinine mixture three times a day.

13th.—She walked about pretty well yesterday. Temperature 98·8°; pulse 88.

20th.—Since the 12th her temperature has been perfectly normal, and she has had no recurrence of pain. She left the hospital this afternoon quite convalescent.

SEAMEN'S HOSPITAL, GREENWICH.

CASE OF ACUTE RHEUMATISM TREATED BY SALICIN.

(Under the care of Dr. RALFE.)

THE almost specific power which salicin seems to possess of arresting the course of certain cases of acute rheumatism with high temperature is well exemplified in the following case, which was recently treated at this hospital:—

James A——, aged twenty-two, was admitted May 16th, on the second day of his illness, with all the symptoms of rheumatic fever. He was quite helpless from the severity of the pain in the large joints, drenched with acid perspiration; the chest and abdomen covered with sudamina; the tongue thickly coated with white fur. Pulse 120, full and bounding; temperature 104°. No cardiac complication. The patient was at once put on salicin, ten grains every second hour; to have half a grain of the acetate of morphia at night; milk diet. On the evening of admission, after six doses of salicin, the temperature had fallen to 102·8°.

May 17th.—Pulse 104. Morning temperature 102·4°; evening 102·6°. Pain in elbows and wrists very severe.

18th.—Pain much relieved. Morning temperature 101·4°; evening 101·8°; pulse 98.

19th.—Patient expresses himself as quite relieved. Perspiration much less; tongue cleaning. Morning temperature 100·2°; evening 101°.

20th.—Improvement continues. Patient says he feels quite well, his pain quite gone, and he has asked to be allowed to get up. Morning temperature 99·2°; evening 99·8°; pulse 86.

21st.—Patient quite convalescent. Temperature normal.

22nd.—Allowed up. Temperature normal.

23rd.—Patient very anxious to be discharged, as he says he feels "perfectly well."

25th.—Patient discharged, convalescent.

Remarks.—This case well illustrates the marvellous power which salicin seems to exert in some cases of rheumatic fever. On admission the case threatened to be long and severe, the temperature was high, and all the symptoms acute, yet in four days the patient was practically convalescent. The rapidity of the cure will contrast favourably with the most favourable recorded cases under other modes of treatment, and from what we know of the history of rheumatic fever, the result can only be attributed to the salicin.

ABERDEEN ROYAL INFIRMARY.

CASE OF PERFORATING ULCER OF THE SOLE OF THE FOOT.

(Under the care of Dr. ALEX. OGSTON.)

FOR the following notes we are indebted to Mr. Edwin F. H. Dobson.

Mrs. C——, aged twenty-eight, was admitted on December 8th last with an ulcer on the sole of her left foot. When three years old she cut the great toe of her left foot with a piece of glass; the wound bled profusely and her medical attendant was called in. He proposed amputation of the toe, assigning as his reason that the toe had been poisoned, and that the whole foot would get diseased if the operation was not done. The parents objected to this procedure. The toe was, however, lanced, but with what intention the patient knows not, and she soon regained the use of her foot. Shortly after this a blister made its appearance on the sole of the left foot; this burst, and left a small sore, which got alternately better and worse till thirteen years ago, when it formed a very deep excavation in the sole. At this time two small pieces of bone about the size of a pea came away with the discharge. The sore then quickly healed and remained whole for five years. Eight years ago she walked some distance with a tight boot on. Inflammation and swelling of the foot followed. Poultices were applied; the swelling burst on the sole, and discharged a quantity of matter, together with a considerable amount of very dark-coloured blood. Ever since the foot has been alternately better and worse, but never thoroughly healed. Three years ago she suffered a great deal of pain again in her left foot, but this disappeared as soon as another small piece of bone came away, and the sore then went on as before. Last October the patient was troubled for three weeks with pain in her left lower limb, which extended from the foot upwards to the middle of the thigh, together with a swelling for about three inches upwards from the ankle. She has always been able to walk about, except occasionally for short periods when the foot has been very painful.

The patient has been married five years, and has had two children, both of whom are very healthy. Her parents are both healthy, and her husband and herself have never had anything serious the matter with them.

State on admission.—On the sole of the left foot, and somewhat to its outer side, is a deep, excavated ulcer, about two inches long and one inch broad. The cuticle around its margin is hard and thickened to a depth of fully an inch, and its edges everted. This extends all round the ulcer for an inch, except near the heel, where it extends backwards for an additional inch. The ulcer itself has a very unhealthy appearance, and secretes a very foul, yellowish pus. The foot, as a whole, has not a normal appearance. It occupies a somewhat equino-varus position. The toes can be elevated till the foot is at right angles to the leg, but no further. The foot can in no way be placed in a valgus position. The arch of the foot is deficient; it is unusually flat in the position of the scaphoid and inner cuneiform bones. The toes are flexed and adducted, the flexion being very marked in the great toe. Extension of the toes cannot be effected by the patient, save to the slightest possible extent. The skin over the foot has its normal texture everywhere, except that it is marked with superficial cicatrices at the base of the central toes, and it is glistening, red, and brawny at the outer part of the foot, from the external malleolus to the little toe. The left heel appears as if half-an-inch had been sliced off its sole, and in measurement from above downwards the calcaneum was found diminished by one-half. Internal to the insertion of the tendo Achillis, a depressed pit marks the remains of an old sinus leading down to the calcaneum. The terminal phalanx of the great toe is wanting; a cicatrix exists under the incurved nail, marking the spot through which it had been extruded. In the centre of the sole, extending from the middle of the heel forwards to the ulcer, is a triangular cicatrix, evidently connected with old necrosis of calcaneum. The motions of the ankle-joint are unimpaired. Independent motions between calcaneum and astragalus are obtained with difficulty. Movements of the medio-tarsal joints are good. Sensation is considerably diminished on the outer part of the left leg, and on the whole of the dorsal and plantar aspects of the foot. There is also slight loss of sensation over the anterior and posterior parts of the left leg. The loss of sensation is considerable when compared with the corresponding parts of the other limit. A sharp probe was introduced an inch deep into the diseased sole, and the skin on the outer part of the left leg just below the ankle was pinched up and transfixed by the probe, without the patient feeling the least amount of pain. On testing the galvanic sensibility of the muscles, with the induced current alone, it was found that the reaction of those of the calf of the left leg was very slightly if at all impaired. On the dorsum of the foot very slight contractions were obtained, but it was found impossible to elicit any contraction whatever on the sole of the left foot, of the muscles of the toes, or even of those peculiar to the great and little toes. The muscles elsewhere showed normal contractility. The girth round the left leg, from the ankle-joint upwards for about two inches, is a third of an inch more than on the corresponding part of the other leg. Other measurements are equal on corresponding parts of the body.

In the upper sacral region, immediately to the right of the mesial line and an inch below a line drawn from crest to crest of ilia, there exists a circular deformity of the skin an inch and a quarter in diameter. This deformity consists

of alternate elevations and puckerings of the skin, most marked at its mesial border; the elevations do not exceed a third of an inch, and the depressions are of a corresponding depth. It has somewhat the appearance of a puckered cicatrix, or rather that of a healed prominent navel, and evidently arises from the collapse of a previously existing cyst. The spinous processes of the vertebræ can be easily felt down to an inch above the top of this patch, but below this, opposite the patch, and in the upper sacral region, they cannot be made out—the finger rather receiving the impression of a vacuity. Coccyx is normal, nearly at right angles to the lower part of the sacrum; one or at most two of the lower rudimentary sacral spinous processes can be made out. On questioning the patient about the patch on her back, she said it was a birth-mark, and had never caused her any inconvenience whatever. Tongue clean. Heart and respiration sounds and viscera healthy. Temperature and pulse normal. Urine: sp. gr. 1028, slightly acid, with a mucous deposit.

Dec. 10th.—To-day the diagnosis of spina bifida, anæsthesia, and slight congenital talipes equino-varus of left foot was confirmed. The thickened epidermis and dermis were shaved away from round the margin of the ulcer, and on doing so a slight amount of pain was evinced by the patient. There was also a slight amount of bleeding, due to the cutting of a small superficial arterial branch. The ulcer was then dressed with lint soaked in carbolic oil, over which was put some gutta-percha tissue; the whole foot was then well encircled with cotton wool and loosely bandaged up. It is decided, by the steady use of galvanism and subcutaneous injections of liquor strychniæ, to try for improvement of sensation and motion. The recumbent position is to be strictly adhered to.

11th.—To-day four minims of liquor strychniæ were injected subcutaneously, two of which were injected into the left gluteal region, and the other two on the outer aspect of the left leg. Galvanism was also applied from the left gluteal region, all the way down the limb to the sole of the foot. This treatment is to be carried out twice a week, but the ulcer is to be dressed twice a day.

Jan. 5th, 1876.—The ulcer is decidedly smaller, and is not nearly so fetid as before. Sensation is considerably improved. A little more of the epidermis and dermis were shaved off.

Feb. 1st.—To-day the patient was discharged with the ulcer thoroughly healed: sensation and motion were greatly improved. She was ordered to wear a boot with a well-padded sole, and told to return on her noticing anything going wrong again.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on Wednesday, June 7th, Dr. Priestley, President, in the chair, Dr. WILTSHIRE showed some specimens of Vaseline, a new lubricant, to which various substances had been added, such as boracic and carbolic acids, thymiol, oil of cloves, oxychloride of bismuth, &c. The substance was not greasy. Some very convenient vulcanite jars were shown, in which vaseline could be carried about. It was prepared by Mr. Martindale, of New Cavendish-street.—Dr. BARNES said he had used the material for the last month, and highly approved of it.—The PRESIDENT said he had used it, and could testify to its cleanliness, but he doubted if it lubricated instruments as well as lard or oil.

Dr. GALABIN exhibited a new Anteversion Pessary, which was an attempt to extend to the treatment of anteversion or flexion the action of simple leverage which Hodge's pessary exerts in retroversion. It resembled a Hodge posteriorly, but the anterior arch was formed by a broad transverse arch convex upward. This rested behind the pubes, in front of the cervix, and pushed the fundus upward, while at the same time it stretched the anterior cul-de-sac upward, and so drew the cervix downward and forward. It offered less obstruction than an ordinary Hodge.—The PRESIDENT remarked that he would be grateful to anyone who would suggest anything that would support an anteflexed fundus. He knew of no instrument at present excepting intra-uterine stems.

Dr. CHAMBERS exhibited a specimen of Fibroid Uterus, which he had watched through various phases. The patient from whom it was removed post mortem was fifty-six years old. She had suffered from severe and frequent losses of blood for seven years. The os and cervix had been divided, with relief to the hæmorrhage. The tumour extended above the umbilicus, the abdominal circumference being over forty inches. A profuse muco-purulent discharge had been a prominent symptom. Dr. Aveling's gynecometer had been employed to demonstrate the alterations in the bulk of the tumour, which weighed two and a quarter pounds. On examination post mortem the broad ligaments were found to be quite free, but the tumour was very closely attached to the pelvic fascia.—The PRESIDENT remarked that the specimen illustrated a portion of the pathological history of hypertrophies of the unimpregnated uterus which had received but little notice. No doubt some of the hypertrophies were so hard and dense that little variation was remarked at short intervals in their size. But there was also a large number of instances in which enlargements of the womb underwent considerable variation, and the structure seemed so spongy in character that there was a perceptible increase in bulk with the return of each catamenial period. About the climacteric period the uterus was often so considerably increased in size as to give the impression of permanent fibroid growth, and yet the organ slowly and spontaneously returned to its normal size when the "change of life" was completed. To some extent it was probable that this accounted for the success of the treatment by absorbent remedies, and of Kreuznach waters.—Dr. SNOW BECK inquired as to the treatment, local and general, that had been employed, and what it was the patient died of.—Dr. CHAMBERS explained that the patient died of uræmia. The treatment extended over six years, and was varied and complicated; the uterus being injected with carbolic acid, nitrate of silver, iodine, &c.—Dr. ROUTH remarked upon the plan of incising fibroid tumours. It very frequently determined a sort of absorption of that tumour; but, again, serious symptoms of pyæmia and pelvic abscess were often set up and life imperiled. The danger depended upon whether the os merely was incised or the os and a part of the tumour, as in this latter instance partial necrosis of the tumour, with fetid discharges and poisoning by absorption, ensued. A plan he had adopted for years was to dilate the os uteri and then stuff the uterus tightly with lint dipped in iodine, which was kept in for forty-eight hours, and the effect of softening in some cases was marvellous. He now employed nitric acid in this way. He thought the plan of incising large tumours was too dangerous as a rule.—Dr. HEYWOOD SMITH inquired whether Dr. Routh referred to division of the cervix uteri or of the capsule, and whether any attempt had been made to enucleate the tumour.—Dr. WYNN WILLIAMS referred to a similar case where the patient nearly lost her life from the severe hæmorrhage. He divided the os on either side, and after dilatation made a very free incision into the substance of the tumour; the hæmorrhage entirely ceased and the patient regained her health. He would like to hear any remarks as to the treatment of fibroid tumours by means of the actual cautery.—Dr. GERVIS remarked that, though of course it was easy to be wise after the event, he would like to ask what were the contraindications to enucleation. From examination of the tumour it appeared to be a case of intra-uterine fibroid with the capsule adherent, but not to such an extent as to prevent separation of the adhesions and subsequent removal of the tumour by successive sections.—Mr. SCOTT observed that the tumour was a large ordinary fibroid enclosed in its own capsule. In many cases he believed enucleation might be practised with safety, but not in all.—Dr. CHAMBERS explained that the first division had been very free, part of the capsule being divided. On careful examination of the patient whilst under chloroform he came to the conclusion that under the circumstances the patient would not be benefited by its removal.—Dr. Murray, Dr. Gervis, and Dr. Hayes were requested to examine and report further upon the tumour.

Dr. OSCAR PREVÔT, of Moscow, exhibited a newly-constructed Thermo-Cautery, invented by Dr. Paquelin, of Paris. The vapour of petroleum being driven through the handle to the tip of the platina stem, which has first been gently heated, the bulb becomes incandescent, and may be kept so as long as the vapour is supplied by means of an india-rubber ball, similar to that used in Dr. Richardson's spray-producer. In place of the bulbous extremity, others shaped in the form of a bistoury could be employed. The instrument was both ingenious and valuable, being very portable, easily got ready for use, and produced very little radiation. It could be used in all cases where the actual, or gas, or galvanic cautery would be employed.—The PRESIDENT thought it would be very useful for destroying vascular tumours of the urethra, &c.—Dr. WILTSHIRE considered it most remarkable that the vapour should keep up the heat even when buried in the tissues. The instrument was very inexpensive, the whole affair costing only a hundred and twenty francs. It was constructed by Messrs. Charrière, of Paris.

An abstract of Dr. Gervis's paper on Puerperal Septicæmia, which was read at the previous meeting, was then given in, after which Dr. WILTSHIRE read Notes of a Case of Puerperal Septicæmia, with abscesses, disorganisation of the left wrist-joint, and phlegmasia dolens, in which recovery took place. The case was seen in consultation with Dr. Hammond. It was that of a primipara, aged thirty, who had perfectly normal labour, but on the third day vomited and perspired freely. Rigors ensued, and the temperature rose to 105° F. The patient's condition varied very much, sometimes improving considerably, and then getting a sudden relapse, with rapid elevation of temperature and other unfavourable symptoms. Abscesses formed in the right leg, and were opened from time to time. Phlegmasia dolens of the left leg supervened at the end of a month. The left wrist-joint was utterly disorganised, the bones grating audibly on movement. There was profuse sweating and extreme prostration. In spite of relapses, she recovered, and was able to be removed to the seaside three months after delivery. A curious feature of the case was the coincidence of the relapses with the emptying of the dust-bin, generally of weekly occurrence; in fact, it is a question whether the illness was not originally started by poison derived from the same source. Quinine in this case proved of much service, and seems to be peculiarly valuable where great elevation of temperature with diffuse suppuration exists. It is now some sixteen months since her confinement, and she has regained movement of the wrist-joint in a very gratifying degree.—The PRESIDENT remarked that last session a very exhaustive discussion on this subject took place before the Society. He would suggest, therefore, that it would be well in the present instance to limit the discussion to the symptomatology and treatment.—Dr. EDIS referred to a case occurring in a patient in consequence of a miscarriage about the fourth month, where, owing to the uterus being retroflexed, there was considerable difficulty in removing the whole of the ovum. Abscesses formed in various parts of the body, contraction of the left hip took place, and the patient was reduced to a mere skeleton. Large doses of quinine, together with the hypodermic injection of morphia, proved of most value as regards treatment. After struggling on for over three months, the patient recovered sufficiently to be able to leave the country.—Dr. BRAXTON HICKS believed there was nothing like large doses of quinine—five to ten grains every four hours for three or four days. He had never tried the injection of carbolic acid. He thought the fact of there having been an offensive discharge in Dr. Gervis's case was not sufficient to account for the septicæmia, as many patients had the former without the latter. Other cases were also alluded to, arising from various causes, showing that septicæmia might depend upon numberless different exciting causes.—Dr. GERVIS said he wished to correct the impression that the discharge had caused the septicæmia. It was merely one of the factors.—Mr. REDMUND alluded to a case where quinine had been given in fifteen-grain doses night and morning. As to puerperal fever following offensive discharges, one seldom found it resulting from severe operations in midwifery.—Dr. CHALMERS agreed with Dr. Braxton Hicks, that a wider view must be taken of the causation of puerperal fever than that which was generally adopted. He instanced cases where sore-throat in the nurse, a patient suffering from putrefying sores in the same house, infection conveyed by the attendant from other cases, &c., seemed to have been the exciting causes. The great difficulty we had to contend with among the lower orders was the ignorance about the ordinary laws of health, disregard of cleanliness, and gross prejudice in favour of filthy conditions. The wonder was that so few died of puerperal diseases. Where recovery ensued it was chiefly due to good nursing.—Dr. BRUNTON remarked that though he practised in the same neighbourhood he had not met with any cases of puerperal fever in his own practice.—Dr. CHALMERS stated that he knew of several cases in the practice of other medical men in the neighbourhood. Dr. HAYES said he would not go so far as to deny that puerperal fever with a healthy lochial discharge did not occur, but he thought such a thing to be extremely rare. It would not do to accept the nurse's statement as to all being right; we must satisfy ourselves by investigation, and see that no offensive discharges were pent up in the uterus. Cases in point were briefly referred to. Regarding treatment, he saw little to support the notion that quinine, turpentine, carbolic acid, &c., exerted a specific action. He regarded the intra-uterine injection of disinfectants as most important where there was any fetor of the lochia.—Dr. WYNN WILLIAMS agreed with Dr. Hayes; in fact, they were the same views he (Dr. Williams) had expressed at the late discussion. As to the source of infection in cases of septicæmia, the putrid discharges from sore-throats and abscesses, and the fetid discharges from erysipelas, he believed to be the origin of the septic poison; but cases also occurred from decomposing débris in the uterus, a case in point being cited. As to the action of quinine in cases of septicæmia, he could not understand how it could have any specific effect.—Dr. GERVIS, in reply, stated that he had brought forward the case not with any wish to introduce further discussion on puerperal fever generally, but he thought the case a typical one, and worthy of permanent record. He had also wished to elicit the opinion of other Fellows on the treatment by carbolic acid, the exact significance of the enlarged condition of the uterus which existed in the early stages, and the relation of puerperal septicæmia to scarlatina.—Dr. WILTSHIRE thought that in cases of hyperpyrexia quinine was very valuable when it was due to purulent collections, but useless in ichorræmic cases. Therapeutics were too much neglected, to the disadvantage of the patient and the discredit of the profession.

Reviews and Notices of Books.

Cholera Epidemics in East Africa: an Account of the several Diffusions of the Disease in that Country from 1821 *till* 1873, *with an Outline of the Geography, Ethnology, and Trade Connections of the Regions through which the Epidemics passed.* By JAMES CHRISTIE, A.M., M.D., late Physician to H.H. the Sultan of Zanzibar, &c. 8vo; pp. 508. London: Macmillan and Co. 1876.

IN 1870 and 1871 we published two papers by Dr. Christie on Cholera in East Africa, which had been communicated to the Epidemiological Society. The history of these papers is of considerable interest. Mr. Netten Radcliffe, in his official report on the diffusion of cholera in 1865, had directed attention to the occurrence of a choleraic disease in slave dhows running north, and captured off the East African coast, previous to cholera appearing in the Hedjaz, and had suggested the possible existence of cholera in East Africa at that period. It was not, however, until 1870 that he was able to obtain confirmation of this suggestion. In that year, through the assistance of the Right Rev. Bishop Tozer, and as honorary secretary of the Epidemiological Society, he was placed in communication with Dr. Christie, and he induced that gentleman to attempt to recover the believed missing data regarding the early history of the epidemic of 1865 in its relation to East Africa. The first results of Dr. Christie's investigations were given in the two papers to which we have referred, and which he

modestly termed "Notes," but which we described at the time as furnishing an entirely new chapter in the history of epidemic cholera. In fact, working in Zanzibar, far away from ready means of detailed information as to the great diffusion of cholera which reached Europe in 1865, Dr. Christie was not in a position rightly to estimate the importance of the facts regarding cholera in East Africa which he had succeeded in collecting, and it was not until the facts reached this country that their true value was fully appreciated, and the great historico-geographical importance of the labours by which they had been obtained properly understood. No sooner had Dr. Christie become aware of the value attached to his inquiries by epidemiologists in England, and of the important light which they had thrown upon some of the obscure questions of the great diffusion of 1865-68, than he determined to subject the whole question of epidemics of cholera in East Africa to a scrupulous examination, extending his investigations to the history of all the epidemics known to have prevailed there. The result of these investigations is now published in this handsomely printed volume.

Such, in brief, is the story of Dr. Christie's work on the subject of this volume as given by himself. The volume is something more than an enlargement of the previously published papers. It is an elaborate, and probably unique, application of geographical research to the study of cholera in its movements of diffusion. The problem which Dr. Christie had set himself was to trace out certain appearances of cholera on the East African coast and in Zanzibar to their origin, and for this purpose it was requisite to search out the movements of the disease on the mainland. In pursuing the investigation he had to depend chiefly upon the information of native traders and of the leaders of caravans visiting districts and nations as yet unknown to our maps. Successfully to pursue such an inquiry required an exceptional knowledge of local languages and dialects, a clear understanding of native character, and a quality of perseverance which would have been remarkable in a temperate climate, but which exhibited under the torrid zone, and amidst the horrors of Zanzibar town and port, is simply marvellous. Bit by bit he got together the facts of chronology of the different movements of cholera in East Africa in 1864, facts which at first he was unable to reconcile with such knowledge as he had of contemporary spread of cholera outside Africa, but which nevertheless he recorded as obtained, and which, viewed in the fuller light he afterwards procured, are now seen to fill up a great hiatus in the history of the great diffusion of 1865–70.

In giving these facts now in detail to the world, Dr. Christie has thought fit to add to his work whatever is known respecting the localities and the peoples of which he has to treat. The first impression of the reader probably will be that much of this matter might have been condensed, and that Dr. Christie very needlessly distrusted his own literary powers in having recourse so much to quotation. But he appears to have thought that in questions having a scientific bearing where he found it necessary to refer to authorities, it was best to give their statements as far as practicable in their own words. It may be said, also, that these authorities are not always easily accessible, and by adopting this course Dr. Christie has relieved the studious reader from much troublesome reference. Unquestionably, although the book may be lengthened by quotation, its interest is by no means diminished thereby. Indeed, the explanatory matter, geographical, ethnological, and commercial, may be read with interest by all who give regard to East Africa, quite apart from the special subject of the book.

Dr. Christie first gives an excellent account of the meteorology and climatology of Zanzibar. He then describes the Mecca pilgrimage in relation to diffusions of cholera. Next he relates the history of the cholera epidemics of East Africa from 1821 till 1865. An account of the origin and geographical distribution of the epidemic of 1865 in East Africa follows. He traces, step by step, the entrance of cholera into East Africa at Berbera in 1864, and the passage of the disease along the southern caravan route, across the Somali country, to Gananah, Barderah, and to the east coast, and connects the spread with the choleraic disease in the captured slave dhows, noted by Mr. Netten Radcliffe in 1865. The chapter devoted to this subject supplies the facts necessary to a complete knowledge of the origin of the great diffusion of cholera in the Hedjaz, and subsequently in Europe, in 1865, as has been shown in detail in Mr. Netten Radcliffe's recent official report on cholera from 1865 to to 1874. Dr. Christie also traces the extension of cholera from Mecca in 1865 into Abyssinia, and by a remarkable series of researches connects this extension with the cholera which, in 1869, emerged from the Masai country, east of the Victoria Nyanza, and spread to the east coast and to Zanzibar. The chapters in which this story is told—the fifth, sixth, and seventh—are of rare interest, and are illustrated by two remarkably well executed maps, which are essential to the right understanding of the story. Dr. Christie next describes the movement of the disease into Central Africa, to a point beyond Lake Tanganyika. He then enters into a detailed description of the sanitary condition of Zanzibar, and of the manners and customs of the inhabitants as affecting the spread of epidemic disease. He gives also a narrative of the epidemic of 1869-70 in Zanzibar; of the diffusion of the epidemic from the island to the coast of the mainland, and of its spread north as high as Socotra, and south as low as Mozambique and Madagascar. Finally, a chapter is added on the light thrown by the East African epidemics of cholera on the etiology of the disease.

No review can do proper justice to a book of this class. The essential merits of the work depend upon details which cannot be rightly understood without giving them in their fulness. The geography, ethnology, and commerce of Eastern and Central Africa are not so familiar that it can be assumed that every reader knows them, and yet a knowledge of them is necessary to the comprehension of Dr. Christie's argument. We commend the book to our readers. It is the most welcome addition there has been to the literature of cholera for many a day. It is welcome from its freshness, from the genuine work it contains, from the instructive and unique illustration it affords of the application of geographical knowledge to etiological research, and from the additional light it throws upon the initial phenomenon of the dissemination of cholera. It has, moreover, filled up a hiatus in the history of cholera, which had been a source of infinite blundering among epidemiologists, as was more especially manifested during the proceedings of the International Sanitary Conferences of 1866 and 1874.

Medicinal Plants. By ROBERT BENTLEY, F.L.S., and HENRY TRIMEN, M.B., F.L.S. Parts V. to IX. London: J. and A. Churchill. 1876.

SUFFICIENT numbers of this publication have now appeared to make it evident that it will well supply a place—too frequently left vacant—in many a medical library. In the execution of the plates and the composition of the text there has been no falling off from the high standard evidenced in the earlier numbers. Mr. Blair's excellent drawings afford indeed but little scope for criticism, save that which conveys only approval. The work is now about one-fourth completed and it contains already many representations of plants, several but little known to the Britsh,

botanical student. The practice of giving illustrations of plants from different natural orders in each number adds to the variety and interest of the latter. The ninth part (just published) contains Cissampelos Pareira, Podophyllum peltatum, Cistus creticus, yielding the resin labdanum (which is now therapeutically extinct except in the East), Geranium maculatum (the rhizome of which is largely used as an astringent in the United States), Polygonum bistorta, and the nutmeg, turmeric, and vanilla plants. The descriptive text is carefully written, and its therapeutic section, although brief, is accurate.

REPORT
OF
The Lancet Commission
ON
LUNATIC ASYLUMS.

(*Continued from vol. i., p. 926.*)

WE cannot even enumerate the domestic precautions necessary for the safety and reasonable comfort of the insane. It must suffice to notice, almost at random, a few of the points which seem to us especially deserving of attention because frequently overlooked.

It is of importance so to distribute the inmates of an asylum that the paralysed and infirm may sleep as nearly as possible on the same level as their day-rooms and airing-courts, to avoid the necessity of traversing cold corridors and climbing and descending draughty and dangerous staircases. In building new asylums, the hideous angle staircases in vogue forty or fifty years ago, and so unaccountably perpetuated in asylums and workhouses of later date, should be superseded by more direct flights of stairs, with low and broad treads. In no case ought the practice of allowing large bodies of lunatics to sleep in the room in which they pass the day to be tolerated.

Staircases, corridors, associative dormitories, and single rooms should be ventilated and warmed so as to preserve a pretty uniform temperature. We have found considerable difference of opinion as to what this temperature should be. It is difficult to lay down a law on the subject. Perhaps the avoidance of draughts is the best practical guide to temperature as well as ventilation. If air rushes into an apartment at every crevice or opening of door or window, unless the atmosphere without is extremely cold, the temperature within is generally too high; and except in the case of old or paralysed people who are unable to take exercise of any kind, this is injurious to the well-being of the patients and prejudicial to their chance of recovering in a malady which depends so directly upon the proper distribution of blood in the body and normal nutrition as mental disease in all its forms. When, as too often happens, the patients are turned out of this heated atmosphere into cold airing courts, the mischief is complete. We have seen patients loitering about their courts, or even squatting on the ground, pinched and blue with cold, while the day-rooms have been much too warm. The whole question of heating requires close attention; our immediate concern just now is with the dormitories and single rooms, but it is impossible to leave out of consideration the state of day-rooms, corridors, and staircases. A sudden loss of heat on the way to bed, or on entering a sleeping-room, may involve a restless night, disturbed dreams, or perhaps a "fit" of some kind. Here and there we have found the day-rooms too cold, but the common fault is that they are too warm, and the dormitories and single rooms, especially the latter, by contrast if not actually, too cold for health or expediency. The system of warming day-rooms by open fireplaces, without suggestive guards, is, we think, admirable. The same mode of warming is applicable to dormitories. A "little bit of fire" looks cheerful, and should be provided in wards for the infirm and the bedridden, but only where a special night-attendant is on duty, not solely for the sake of preservation against mischief or accident, but because open fires generally get low or go out just as they are most wanted, when the night grows cold and the feeble require warmth. It should be borne in mind that the circulation is weak in nearly every case of insanity, even when the pulse beats strongly and the heart labours with the mock vigour of morbid and debilitated excitement. The use of cold as a remedy in furious mania we shall speak of under the head of "treatment." The question of atmospheric temperature stands apart, and we should be inclined to say that, in the case of a patient suffering from mental disease, this should at night be certainly not below 60 F., to meet the physiological requirements of the sleeping brain and the dormant but still living organism.

The practice of requiring patients to undress before entering their sleeping rooms is, we think, a clumsy and objectionable expedient. It has a bad moral influence, keeping the lunatic under a perpetual sense of being distrusted, which exerts a most depressing influence on the earliest and half-conscious efforts put forth for the recovery of self-control—too often nipping them in the bud. It is an indecorous proceeding, and suggests indecents trains of idea, and it is ineffectual. Searching several persons outside, and in a crowd, is not nearly so likely to be successful if conducted with any semblance of propriety—and if not so conducted it is demoralising—as seeing the clothing of each patient put away in a box at the bedside carefully locked. This can be done without any appearance of general distrust, and the practice is effectual. The attendant should see each article folded and placed in the box, which may be made to shut with a catch and opened with a key kept by the attendant who superintends the rising in the morning. The articles of clothing worn by inmates in an asylum should not be more numerous than necessity requires, but sufficiently warm without being heavy. The dress, of females especially, should be varied in colour and style. How this diversity may be employed as a moral agent, and made to obviate the need of strong dresses in the case of destructive patients, is known to all experienced and observant superintendents. Speaking generally, much irritation may be avoided by, as far as may be prudent, acceding to the wishes of patients in regard to matters of clothing. We are convinced that there are cases of local hyperæsthesia, in which it is little short of cruelty to enforce the use of particular articles of clothing prescribed by conventional rules. This may be the place to allude incidentally to the practice of permitting patients who persist in throwing off and, if possible, destroying their clothing, to remain totally uncovered, and the method—which has quite exceptionally been sanctioned or adopted—of placing such patients in single rooms and allowing or obliging them to pass the night naked. It is impossible to approve such a proceeding. The moral effect of this treatment must be injurious. It involves concession to a morbid impulse, a practical, if not specific, toleration of the craving for "nudity" with which the morbid mind is possessed. We should strongly, though, if possible, by indirect measures, oppose this form of mania. It is only fed by feeble remonstrance and subsequent toleration. It is certainly not a malady to be cured on the principle *similia similibus curantur*. We doubt whether hyperæsthesia has anything to do with the impulse in such cases. The propensity is more like a bestial appetite, which calls for repression. The pleasure that attends its gratification is new poison to the mind. The cases to which we referred just now in the remark advocating concession are those where a strong objection is urged to a particular article of dress which may be dispensed with—offending no canon of decency—or to a particular specimen of the article, which may be replaced by another differing only in form, colour, or texture, without any serious breach of discipline. In dealing with cases so grave as those which have been placed in single rooms and allowed to pass the night without either clothing or bedding, we think the fundamental error consisted in the isolation of the patient. A man or woman who desires to be alone for some prurient purpose, or whose propensities are of a nature which cannot be tolerated in an associative

dormitory, should *under no circumstances* be gratified with the solitude craved, or removed from the society of the others because he or she persists in acting improperly. The indications of the disease are clearly to concede nothing. We do not think the fact that a patient so treated is happy, or subsequently expresses his gratitude for the concession accorded, is any proof of wisdom in the course pursued. The recollection of the event, and the gratification experienced at the time and afterwards, are rather evidences that the craving was one of those perverted whims, generally of a debased and debasing character, which are too often confounded with simply puerile insanity, and improperly treated with too great laxity. At any cost and trouble cases of this destructive class should be retained in the wards with other patients. Neither isolation nor the use of strong clothing is necessary or expedient.

We are strongly of opinion that, even making full allowance for the class from which pauper patients are commonly derived, the furniture of dormitories and single rooms is by no means sufficiently cared for. We have already alluded to what has been accomplished, with exceedingly small outlay, at the West Riding Asylum, Wakefield. Every bed has a tasteful covering, by the side of each there is a low chair with cushion, and a strip of carpet, while to every window there are curtains. The general effect is so comfortable, orderly, and tranquillising, that patients retire for the night with greater calmness, and sleep more peacefully, than they would amid surroundings like those too commonly found in county and borough asylums, and which reproduce the poverty without the comforts of *home*. We have a great notion of giving patients everywhere an impression of being in a hospital and well cared for, and so placing them on their honour to behave with self-respect and propriety.

The business of getting patients up in the morning is a serious piece of routine on which scarcely enough care is expended. There is an ancient superstition it might be almost worth while to revive for the special warning of attendants on the insane. It was believed that the soul left the body during sleep, and if recalled too suddenly it had not time to return, and the body woke minus the mind. There is a real danger in awaking the victims of mental disease roughly, and compelling them to rise half-awake to their duties. It would be advantageous if every asylum could be provided with a clock playing a cheerful tune at least twice a day. The donor of such an instrument to any public asylum would be a benefactor. But the point to which we think it desirable to call special attention is the wisdom of leaving drowsy and indolent patients to be roused by the head attendant at his or her first round, and prohibiting ordinary or charge attendants from performing this duty. We have reason to believe that both in public and private asylums much serious harm is done by the rough treatment patients experience in the morning. Such an awaking sours the temper and inflames the imagination of irritable patients for the day. Superintendents are not generally cognisant of the extent of this evil, and therefore fail to recognise the part it plays in counteracting the beneficial effects of quiet and discipline through the ensuing day. A superior attendant, sufficiently removed from the general body of officers to have some authority, is the right person to wield the iron hand cased in the velvet glove, and the duty should be discharged by him personally.

We come next to matters relating to the day-rooms. Superficial area is, perhaps, of even greater moment than cubic capacity in day-rooms, but sufficient height, abundant air-space, light, and general cheerfulness, are indispensable to the comfort, and form an important element in the treatment, of the insane. There is a tendency in many asylums to count upon the absence of a large proportion of patients attached to a ward in estimating its capacity. This leads to crowding at times, which is exceedingly inconvenient. For example, twenty out of forty patients are presumed to be absent, ten at work and ten in the exercising grounds. A wet day occurs, and some of the workers are weak or idle: the ward which can only properly accommodate twenty is packed with a dense crowd. As many as may be are induced to walk or lounge in the corridors, but the day-room is still crowded, and a multitude of lunatics being no more remarkable for mutual amenities than a throng of sane persons thrown together without a common combining purpose, differences arise and conflicts occur. This is particularly prone to be the result on the female side of an asylum, and the frequency with which disturbances ensue is both painful and injurious. It would be wiser to build these day-rooms somewhat larger at the outset, or to crowd them less. Most asylums would admit of extension by light iron and glass buildings of the nature of conservatories, which would answer the purpose of winter gardens for the sick and the infirm. The expense of such erections would not be great, and should be no obstacle in the way of so useful an "improvement." It is impossible to lay too great stress on the expediency of making day-rooms attractive. Those who do not recognise this need can know little of the subject, and to neglect it on the score of expense, even though it be "the ratepayers' money" which is to be spent, is short-sighted. A paltry and mistaken economy seeks excuse in the reflection that the *houses* of the insane poor are not attractive. The plea is erroneous and unreasonable.

The houses of the poor are not healthy; the greater the reason why hospitals for all kinds of disease should be scrupulously healthful. True economy would make the establishments to which poor patients are transferred for the cure of any form of disease, bodily or mental, a thorough change for the better. It is especially necessary this should be accomplished in the case of an institution for the cure of disease of the mind, because recovery is to be mainly sought, and may be chiefly expedited, by creating new interests, and awakening trains of thought more intense and absorbing than those with which the mind is oppressed. If a patient, entering an asylum, finds nothing but dreary surroundings and new sources of annoyance, he will not speedily be restored. If he has the impression of being transported to a strange and pleasant scene, with cheerful objects about him, he is, so to speak, "taken out of himself," and launched on a fresh career, which, if his malady be curable, may carry him back, by circuitous and agreeable paths, to the realities of sane life. This is why we so warmly advocate the liberal supply of musical instruments, aviaries, conservatories, pictures, statuettes, ornaments of all kinds, games, books, and appliances of amusement of every description which the lunatic may be able to appreciate, by which his attention may be fired, and his errant mind captivated. We do not wish to see "public money wasted," but a rapid cure is cheap, and therefore the means for prompt and wise treatment should be liberally provided. We should not have supposed any argument could be needed to enforce the reasonableness and real urgency of this conclusion. Every practical medical superintendent must be convinced of the necessity. It is useless to attempt the conversion of those who, not being acquainted with the nature of the malady, or of the complicated organism diseased, can neither be expected—nor desired—to comprehend the method of cure. We think the expediency of providing the comforts and appliances recommended can be attested by the results, and to the financial appeal we would restrict the popular argument. The same principle of liberality should control the provision of out-door exercise in airing-courts and play-grounds. The amount of liberty to be granted to patients is a question which may be most properly discussed as "treatment," because the moral discipline of an asylum constitutes a chief part of its system of cure. It must, however, be laid down as a principle illustrated by experience that high walls and dreary enclosures are undesirable. Anything and everything prison-like in the appearance of an asylum is injurious. We should certainly decline to go the length of the Scotch Commissioners, and recommend throwing down walls altogether. This is one of the wonderful whims in which those astute censors indulge with inexplicable fondness. But it is happily the policy of all well-conducted asylums to remove every semblance of needless restraint, and reduce the secondary guards to the smallest proportion consistent with safety. "Refractory courts" are obsolete in theory and almost in fact. Airing-grounds generally are beginning to be planted, provided with seats, more or less comfortable, sun-shades, and appliances for amusement. There is still plenty of room for improvement, but the spirit of reform has assumed a practical shape and only requires encouragement. The most unsatisfactory courts we have seen are those which have been "improved," in too niggardly a fashion, with-

out entire reconstruction. It is in these the patients are most discontented and exhibit the greatest turbulence. Where the plants are numerous and pleasing, the walks well laid and tasteful, and the general idea of grounds for agreeable exercise most completely realised, we have decorous conduct, the least tendency to damage surrounding objects, and the most satisfactory effects on the health and comfort of those using them. Out-door exercise is of the highest moment, and excursions beyond the asylum estate are desirable, not only for health, but to habituate patients to intercourse with society, and in the case of convalescents to restore them gradually to the world from which their malady has for a time alienated them, but in which it may be hoped they will again be able to play a responsible part. The practice of sending patients out, first with an attendant and then on parole under proper restrictions, has many obvious advantages. It is an exceedingly delicate task to decide when and how far a patient may be trusted, but the success with which many thousand experiments have been attended prove that, judiciously administered, increasing doses of liberty may not only be borne without injury, but contribute powerfully to the progress of recovery.

The intimate relations of mental phenomena and physical disease, and their mutual dependence, in the great majority of cases makes the question of dietary one of treatment. Speaking generally, no more mischievous misconception can prevail than that because lunatics do not commonly perform much bodily labour they do not require a rich and abundant supply of food. The wear and tear of brain and destruction of nerve tissue in mental disease is enormous. This alone calls for a highly nitrogenous diet and the *moderate* use of stimulants to preserve and restore the process of nutrition, which is nearly always severely perverted. Setting aside the large proportion of cases in which the mental phenomena are the direct effects of anæmia or poverty of blood, the general proposition just stated is true of mental maladies as a class. This need should supply the key-note to the whole system of treatment—the feeding, housing clothing, and comforting of lunatics.

We have already, in the course of our reports, insisted so strongly on the indispensable need of an abundant and pure supply of water, of complete provision for the isolation of cases of epidemic or contagious diseases, of better precautions than exist not only for the extinguishing of fire but the rescue of inmates, that no more need be said on the subject.

(To be concluded.)

THE COMPARATIVE ANATOMY OF THE PLACENTA.

By PROFESSOR TURNER.

In his second lecture, delivered on June 21st, Professor Turner commenced by describing the gravid uterus and disposition of the placenta in the rabbit. At first the uterine mucous membrane presents a series of vertical folds within a number of saccular dilatations, upon which, corresponding to the line of attachment of the broad ligament, and consequently at that part which is the most freely supplied with vessels, occurs a row of swellings or local hypertrophies of the mucous membrane. These parts represent the rudimentary condition of the maternal placenta in connexion with the embryos that are developed in that portion of the uterine horn. The surface of each of these swellings is seen to be covered by many apertures, corresponding to deep crypts in the mucous membrane, each crypt being lined by an epithelial layer continuous with that of the general surface. Injection shows a network of large-sized capillaries in the deep layer. Each of the dilatations contains an embryo within its chorion, the villi of which pass into the uterine crypts. At this stage it is easy to separate the fœtal from the maternal part. As the placenta enlarges it assumes more the discoid form—by the fusion of two of the eminences, and the interlocking between the fœtal and maternal part is so great as not to admit of their separation. From the difficulty in injecting the maternal vessels in the rabbit's placenta, it may be concluded that these are not, as in the sloth, composed of greatly enlarged capillaries. The guinea-pig also has a characteristic discoidal placenta, which at the time of birth is covered by portions of the uterine mucous membrane that have come away with it. A vertical section through the placenta of either the guinea-pig or the rabbit shows a thick cellular mass connected with the attached base of the placenta; corresponding to that well-defined layer, for the most part cellular, which in the human placenta goes by the name of decidua serotina. In the guinea-pig, as in the rabbit, the maternal vessels are still capillary in size—it is difficult to inject them. It is a matter of morphological interest that in such apparently highly organised animals as the rodents the bloodvessels of the maternal placenta should still be capillary, whereas in the sloths—which in other respects are much lower in the scale,—by the enlargement of these vessels, the organ approximates nearer to the human type.

Prof. Turner then proceeded to describe the placentation in the monkey tribe. He said that in the New World apes the placenta is in the form of a simple disc; whereas in the tailed apes of the Old World it is in the form, not of a single, but of a double disc. Occasionally in the human uterus the placenta was double. He remarked that many points in the placentation of monkeys were doubtful, owing to no examination of the organ in a recent state having been made. It would appear that the layer of decidua serotina gives off processes which enter into the substance of the placenta itself, apparently quite up to the surface of the chorion. Each chorionic villus is vascular, and is invested by at least one layer of epithelium; but nothing definite is known concerning the maternal vessels. There seems, however, to be a great resemblance to the human placenta.

Passing now to the structure of the human placenta, the lecturer said that, being undoubtedly the most highly specialised, it was the more difficult to study; and there were many points still in debate. He commented upon the difficulty of obtaining specimens at different stages of growth, the study of which was essential to the true interpretation of the different parts of the fully-formed placenta. Considering first the fœtal part of the placenta, the earliest observation upon the human ovum is one made by Reichert, who in a gravid uterus, the twelfth or thirteenth day after impregnation, found the ovum to be of a lenticular form and shaggy appearance, measuring about one-fourth of an inch in diameter. The shagginess of the surface was due to the development of the chorionic villi, which at this early stage are short and simple, limited to the margin of the lenticular ovum. Microscopically the chorion, with its villi, is found to consist of a cellular membrane, and is thus quite different in structure from the homogeneous zona pellucida which it has replaced; its cellular structure shows also its origin from the epiblast.

Wharton Jones and Velpeau have described human ova of about as early a date as Reichert's specimen, and Allen Thomson has given the description of an ovum of the fourteenth to the eighteenth day, in which the villi were more numerous. More advanced stages of development are recorded by M. Coste, who describes the villi as branched and vascular, the allantois being well developed. At one stage the whole surface of the chorion is villous, but about the eighth week this condition becomes limited to one part by the atrophy of the villi on the rest of the chorion.

Turning now to the maternal portion of the placenta, Prof. Turner briefly described the normal mucous membrane of the uterus, covered by ciliated epithelium, and furnished with glands which, lined by epithelium, pass down to the layer of muscular fibres in the deeper mucosa, as described recently by Dr. John Williams. When the uterus becomes pregnant the mucous membrane swells up and becomes more vascular. The most careful description of the early gravid uterus is that by Reichert. The swollen and hypertrophied mucous membrane forms the decidua, which is divided into a number of areas, and it is in one of them that the ovum is contained. This ovigenous chamber shuts off the ovum from the general cavity of the uterus. The decidua reflexa is vascular, and in it can be seen the mouths of the utricular glands; and the decidua serotina is that which lies between the substance of the placenta and the wall of the uterus.

The lecturer had had the opportunity of carefully ex-

amining a specimen of a gravid uterus about one month after impregnation. The specimen is now in the museum of St. George's Hospital, and was described by Dr. R. J. Lee in THE LANCET for 1873, vol. ii., page 549. Sections of the decidua serotina and maternal placenta of this specimen showed, under the microscope, a few uterine glands, but so few as to remove all doubt that the villi were connected with them. The specimen showed also the early development of the maternal sinus system in the existence of large blood-containing spaces, with thin epitheliated walls—in fact, little else but greatly dilated capillaries.

THE PLAGUE.

WITH the commencement of the hot season in Mesopotamia plague manifestly declined, and now that that season has fully set in it is reported that the disease is rapidly ceasing. A like course was followed by the disease in the two previous years of prevalence, and in those preceding outbreaks of plague in Mesopotamia of which we have a definite knowledge. It appears to be the rule of plague in the lower valleys of the Tigris and Euphrates, to become active in the winter, attain its most considerable development in spring, and decline and die out, or become dormant, in the summer. This seasonal variation of prevalence corresponds with that which was formerly observed in Egypt, but differs considerably from that which held good in more southerly countries. "The winter," says Volney (quoted by Gavin Milroy), "stops the plague at Constantinople because the cold is great, and the summer lights it up because the heat is then humid; while in Egypt the winter favours it because the climate is then warm and moist, and the summer stops it because it is hot and dry." The heat is only injurious when associated with humidity. Mr. Bourke, the Under-Secretary of State for Foreign Affairs, in answer to a question put by Mr. Twells in the House of Commons on the 26th inst., gave the following statement of the deaths from plague in Bagdad to the end of the second (?) week of June:—February and March, 259; April, 1707; May, 1550; June, 143. These figures are merely approximative. The later Ottoman official returns from Mesopotamia have either been very irregular and imperfect, or else they have not been made public during the confusion arising out of the deposition and subsequent suicide of the Sultan Abdul Aziz. All, however, show a great falling off in the prevalence of the disease. Thus, in Hillah, where, during the week ending the 28th April, 245 cases of plague and 148 deaths from the disease were recorded; the numbers recorded in the week ending the 19th of May were 68 cases and 111 deaths; and in the week ending the 26th of May 46 cases and 36 deaths. In Bagdad the deaths from plague, which had numbered 399 during the week ending the 29th April, had fallen to 162 during the week ending the 27th May; and the latest reports state that there have been in the present month three or four days without new cases of the disease. In Kerbella, Nedjef, Imam Musa, and elsewhere, plague has either considerably diminished, or has died out, or has become dormant.

With the news of the rapid decline of plague in Mesopotamia comes also the news of its appearance in Persia. Some little time ago it was rumoured that plague had again appeared in Persian Kurdistan, and about the same time it was said to have broken out at Kerkuk in Turkish Kurdistan. A recent Russian telegram announces the appearance of the disease in one of the southern districts of Persian Kurdistan, and so much weight does the Russian Government attach to this report that it has adopted precautionary measures against possible dissemination of the disease to Southern Russia by way of the Black Sea navigation. There would, however, appear to be little doubt that plague has passed the Turco-Persian frontier at a more southerly point, and entered Khuzistan. Shuster, on the river Karun, is said to have been attacked, and, this being true, it is hardly to be hoped that the district intervening between this town and the Ottoman frontier will have escaped.

Dr. Dickson, the physician to the British Embassy at Constantinople, in a letter to *The Times* of the 21st inst., has endeavoured, but unsuccessfully, to set Messrs. Gray, Dawes, and Co. right as to the existence of plague in Mesopotamia. But that firm, ignoring Surgeon-Major Colvill's opinions formed on personal observation of the disease, does not hesitate also to question Dr. Dickson's conclusions. So little is the firm acquainted with sanitary matters in the Levant that it is unaware that Dr. Dickson is the British representative on the Ottoman Sanitary Administration, and of necessity has coming under his observation all the official information communicated to the Ottoman Government on the subject. Messrs. Gray, Dawes, and Co. refer to the Government for information on the subject, but when the two Government official medical reporters, Dr. Dickson and Surgeon-Major Colvill, disagree with them, they do not hesitate to reiterate their own foregone conclusion, and put aside as of no moment the opinions of the responsible medical reporters of the Government. As the statement of the Government on the plague, in the House of Commons on the 26th inst., would be founded upon the reports of Mr. Colvill and Dr. Dickson, we presume that this will prove equally unconvincing to Messrs. Gray, Dawes, and Co. Whatever may be the vexations of quarantine, it is difficult to understand how the British Government can help British merchants in obtaining an amelioration of them if this is a sample of the temper in which they deal with so difficult a question.

A UNIQUE CASE.

To the Editor of THE LANCET.

SIR,—I beg to send you brief notes of a case which appeared to me rather singular, and would be glad to hear if any of your readers have met with its parallel in practice.

An old man, about sixty years of age, had been afflicted for upwards of two years with a singular spasmodic affection. It consisted essentially of a hiccough, the spasm being inspiratory and distinctly diaphragmatic, differing, however, from ordinary hiccough in two particulars. The contractions were always double, and they were less sudden and jerky, the vibration of the vocal cords producing a deliberate note. Ordinarily he was not free from paroxysms for five minutes together. When conscious of being observed, however, or while talking, he would be attacked with a series of double hiccoughs almost every minute. Lately his rest had been very much disturbed from this cause.

The physical and mental anguish which this man suffered, according to his own account, is worthy of note. The constant spasms, besides being by themselves a source of perpetual annoyance and fatigue, necessarily became the solitary theme of his thoughts and fancies, utterly banishing repose of mind. When he went out of doors, too, it was only to be made the subject of curiosity, sympathy, and perhaps ridicule. There was, indeed, something intensely ludicrous in the serio-comic cacklings—they resembled cacklings more than any sound I know,—heightened by the grotesque appearance of the subject himself.

As to the cause, I could gather nothing more than that it came upon him gradually after having suffered from a severe cold. There was no pain whatever, and in other respects the subject was apparently healthy enough. He consulted upwards of half a dozen doctors and a *druggist*, who prescribed abundantly and with great assurance, but without the least relief.

I treated him with large doses of bromide of potassium and assafœtida, and he began immediately to improve. In less than three weeks he was quite cured, to his great delight. It is now six months since he was free of it, and there has been no recurrence. It may have been reflex or sympathetic irritation, traceable to the stomach, duodenum, liver, pancreas, or spleen; but then it lasted steadily for twenty-four months and rapidly yielded to simple antispasmodics. Could it have been a tumour pressing upon the eighth pair of nerves?—if so, would there be complete immunity from symptoms for six months together, after it had lasted steadily for two years?

Truly yours,

Tongue, June 21st, 1876. J. A. AUSTIN, M.B.

THE LANCET.

LONDON: SATURDAY, JULY 1, 1876.

SELDOM has a larger or more distinguished audience been seen within the walls of the Royal College of Physicians than that which assembled on Monday last. The occasion was not less remarkable. To do an "unprecedented honour" to one in the highest degree worthy of it, to listen to the last message they would ever receive for one whom they held in highest regard, to hear from the lips of one of the most honoured of the survivors of Dr. PARKES's early friends an estimate of his work and character,—these were the motives which drew together an audience in which every branch of our profession was represented by its most distinguished members.

In the clear and impressive enunciation of Sir WILLIAM JENNER the unfinished Harveian Oration of Dr. PARKES received worthy rendering. Its theme was that to which one after another of the Harveian orators finds himself drawn by irresistible attraction, and which, old yet ever new, derives fresh interest from each successive presentation. Every earnest worker approaches the magnificent investigations of HARVEY with new interest, and some can communicate this new interest to others. This Dr. PARKES's oration unquestionably does. No one who listened to it or who reads it to-day can fail to enjoy the striking and valuable analysis of HARVEY's character and work which it presents. The worth of his discovery, its position among the bright lights which mark the progress and guide the follower of truth, the insight it affords into the workings of a master mind, the mechanism of the discovery, the hindrances which obstructed the work, and the grand moral and mental force which carried it on to convincing proof, were all sketched with the touch of deep, if unconscious, sympathy.

As Dr. PARKES insisted, the discovery of HARVEY remains unchanged in its pre-eminence, although two hundred years have passed, and it may be safely predicted that "no lapse of years" will eclipse its lustre or obscure its position as a cardinal point of scientific truth. It is one of the fundamental discoveries, one of the corner-stones, of physiology, on which a large part of the superstructure must rest, and it is a discovery which must be by us, as it was, with prophetic insight, by his contemporaries, termed immortal. It was a real discovery, "worked out and thought out point after point" with unwearying assiduity, unfailing trust. The characteristic of his mind was his power of observation, a faculty which it was maintained may be so intensely developed as to separate such minds as HARVEY's quite absolutely from their fellows, just as the musical or mathematical capacity sometimes separates men from others, even in their early years. This power of observation is possessed by all men, but in a few carried to an extreme. Such men "must observe and try experiments, must be always asking questions of Nature;" even if they have to torture Nature, they must wring from her her secrets. In HARVEY this power of observation preponderated over all other faculties. He was not, Dr. PARKES argued with much acumen, an imaginative man, if we may judge from his scientific writing, but he was a man of great faith in facts; he took immense care to ascertain their truth, and having satisfied himself of their accuracy, he never questioned, never doubted them, but reasoned and worked from them as certainties. Hence he overlooked none, and from that come both the perfection and the clearness of HARVEY's work. To this day, apart from new means of investigation, *his* proof remains *the* proof of the circulation *of* the blood; and no new means of investigation have brought us one step nearer to the elucidation of the mystery of generation, of which all we can say is, that it is as clear to us as it was to HARVEY, and no clearer. For the materials of the discovery of the circulation every kingdom of Nature was laid under contribution. "HARVEY was a thorough vivisectionist." At first all was obscure, but at last, by patient looking and watching, all became clear. He disentangled one movement from another, arranged them in line and order, and at last arrived at so perfect a knowledge of the intricate movements of the heart that he left really nothing for his successors to do. This discovered, he passed on to other questions, until at last the whole problem of the circulation of the blood was clear before him, and so clear that no hearer of his demonstration ever doubted its truth. After an outline of the investigation into generation, in the midst of a regret for the inestimable loss of HARVEY's work on practical medicine, in an unfinished sentence, the oration ends.

It was a coincidence, sad and strange, that, as Sir WILLIAM JENNER pointed out, the Harveian orator of the year should be the first to fulfil the anticipation contained in one of the earlier sentences of his own oration, "that other memories than that of Harvey might be recalled on that anniversary." The memory of EDMUND PARKES was, indeed, too fresh to need "recalling." The sense of his loss was in all too keen for forgetfulness. In words full of admiration, of love, and sympathy, Sir WILLIAM JENNER glanced at salient features of the labours, and the striking beauties of the character, of his early friend. The marvellous, indefatigable industry, the keen intellect, the yearning for truth, the purity of soul, were all portrayed with the care of earnest affection. And, in listening to the account of the striking intellectual and moral qualities of Dr. PARKES, few could fail to be struck with the parallel, irresistibly suggested, to the description he himself had given of his great predecessor. The same earnest searching after truth for truth's sake, the same keen and trained power of observation, the same "faith in facts," the same unbroken allegiance to the right and the just, shine in the character of each, and give to their scientific work the same absolute worth. If no great scientific achievement gives to PARKES a position among his compeers and predecessors of the same pre-eminence, we can, from his nearer presence, feel more of the moral beauty of his life, as shown in his work and in his personal character. He was one of those whose personal goodness is contagious, inciting to more earnest work and more useful life. In his last words, and in the testimony to his goodness which was added, not a few who listened felt themselves brought for once, or for once more, within the

sphere of his influence, and the stronger, in that contact, for the work or the endurance that might be before them.

THE report which we published last week of the discussion on the Conjoint Scheme at the meeting of Convocation of the University of London would, at first, lead us to think that this University was cooling in its interest in this matter. Dr. POORE's amendment, which received considerable support, would have liberated the University altogether from any merely English scheme. In his speech he argued, on the one hand, that the corporations would do better in a Conjoint Scheme without the universities, and, on the other, that to ask the University to part with its power of giving its degrees independently of the Conjoint Board and its examinations was to ask too much. In answer to Dr. POORE's suggestion that this Board should be constituted by the co-operation of the corporations only, we have to say that a Conjoint Scheme in which only the corporations were included would not command the respect that would be accorded to a scheme in which the universities were also embraced. As regards the hardship of requiring the University of London to forego the right of granting degrees to all who have not passed the Conjoint Board, we can only regret that it did not sooner occur to the section of the University represented by Dr. POORE. The University has gone to Parliament for powers to join in a Conjoint Scheme—powers, in other words, to do the very thing which Dr. POORE wishes it not to do. Surely it would be inconsistent in the University, and almost stultifying, after having moved Parliament to enable it to require its graduates to pass a Conjoint Board, to refuse to join this board, or to attach such a condition to the gift of its degrees. A university, after all, exists not merely for the sake of conferring its own high degrees, but for influencing favourably the whole education of the country. And we can conceive no higher service which even the London University could do to the public or to the medical profession than by taking part in a Conjoint Scheme for raising common medical education as much above what it has been as by its own graduation system it has raised the whole tone of examinations for degrees throughout the kingdom. Dr. POORE is justly proud of his University and of her degrees, but he might well regret that she stands so much aloof from the body of the medical profession and satisfies herself with discharging the very high office of conferring degrees on twenty or thirty persons annually in the kingdom and its colonies. It is satisfactory that Dr. POORE's amendment was not carried.

Dr. FAGGE's motion, which was carried, still leaves it open for the University to fall in with the scheme. True, the motion expressed the opinion that the present amended scheme was unsatisfactory. But the points in respect of which the scheme was considered unsatisfactory are such as may yet admit of such modification as will satisfy the University. The University wishes to take no direct part in the appointment of examiners, but desires that the number of representatives on the Committee of Reference should be increased. At present the number is eight, while that of the representatives of corporations is twelve. We hope that the objections of the Universities of both Cambridge and London will be met. There should be a little concession on both sides in this matter. Dr. HILTON FAGGE's motion might have been so worded as to give the impression of greater friendliness to the Conjoint Scheme, but we venture to hope that the University of London will not be too critical or impracticable in its conditions of joining a scheme for the principle of which it has always hitherto professed respect. If this occasion passes without a Conjoint Scheme being realised, the most sanguine will despair of ever seeing it realised by a conjunction of existing bodies. If a scheme cannot be carried under the auspices of such Presidents as now influence the corporations, it is not likely that any such scheme will succeed. The alternative will be a simple and in many respects a far more satisfactory Board, such as that proposed by this Journal a few years ago. This will involve less hardship to the student; but it would not be so satisfactory to the existing medical authorities, who have now a great, and perhaps a last, opportunity of combining.

THE Pollution of Rivers Bill of 1876, though not introduced by Mr. SCLATER-BOOTH till after the Whitsuntide recess, seems likely to pass into law without serious opposition. On the whole, it is perhaps better that it should, for though it is imperfect in many respects, and much vaguer than an Act of Parliament should be, it is a distinct improvement on the Bill of last year, and everyone must be anxious that something should be done, if only to pave the way for a more thorough measure.

Lord SALISBURY's Bill, withdrawn at the end of last session, was, in almost all possible respects, a bad one. We reviewed its chief clauses in some detail early in the present year,* fearing that it might be reintroduced this session without substantial alteration. We are happy to say that this mistake has not been committed, and that nearly every one of the minor, some even of the major, difficulties to which we drew attention, have been dealt with, and one or two of them actually removed. The new Bill has been more skilfully drawn than the old, and at least one of the most objectionable provisions has disappeared altogether.

In one respect, a backward step seems to have been taken. Last year's Bill contained a clause by which the Local Government Board could, if any sanitary authority refused to do its duty, empower some one else to take proceedings and enforce the Act. This clause no longer appears, and we therefore fear that the London Board will not possess this very salutary power. If so, the Act will, in some places, remain a dead letter, for it not unfrequently happens in manufacturing districts that a majority of the local sanitary authority, in number and in influence, consists of persons who have a direct personal interest in the matter.

The chief clauses now stand as follows:—

1. Solid matters of any kind must not be thrown into any stream, so as "to interfere with its due flow or to pollute its waters."

No exception is made, and the clause will press rather hardly on some mining operations, which were specially provided for by the Rivers Pollution Commissioners. The great vagueness of the enactment will, however, probably prevent offenders from feeling much anxiety.

* THE LANCET, Feb. 5th, 1876.

2. Solid or liquid sewage matters are prohibited. Persons who are offending in this respect at the time when the Act passes will, however, be let off if they show that they are using the "best practicable and available means" to render the sewage harmless. Power is also given to the Local Government Board to grant time for the execution of necessary works.

This clause will leave open a door for endless disputes. Interpreted literally it would prohibit the addition to a stream of even the most carefully purified sewage, for no effluent water, not even that from the most efficient earth-filter, is free from "liquid sewage matter." Such an interpretation would, of course, be a *reductio ad absurdum*, and yet as the clause is worded it is difficult to see how it can be avoided.

The difficulty just named applies, it will be seen, only to offences committed for the first time after the passing of the Act. In all other cases a still greater difficulty presents itself. We asked before, and we must ask again, What are the "best practicable and available means" of rendering sewage matter harmless? The answer to our objection is given in Clause 14, where it is provided that the certificate of an inspector of the Local Government Board to the effect that such means have been adopted shall be accepted "in all courts and in all proceedings as conclusive evidence of the fact." If such certificate be refused by the inspector, the party concerned may, however, appeal to the Local Government Board.

Here the introduction of the inspector, and the curiously indefinite powers entrusted to him, form a new and somewhat puzzling element in the question. How many inspectors are there to be? What amount of knowledge will be expected of them? How are they to be paid? And, above all, how is uniformity in their decisions to be secured? Supposing one inspector believes in the A B C process, another in intermittent filtration, and a third in peat charcoal or sewage cement? We fully believe that the only real remedy for the evils of river pollution will be found in an efficient system of inspection, but surely the inspectors cannot work properly unless some fixed standard is placed in their hands.

3. The addition to a stream of any "poisonous, noxious, or polluting liquid" from any factory or mine (except the drainage-water of a mine) is prohibited.

The exceptions to these clauses are wider. Not only may a person whose works are completed or in progress at the time when the Act passes claim immunity if he can satisfy the court, or rather the inspector, whose evidence is binding on the court, "that he is using the best practicable and available means to render harmless" his effluent water, but by a new clause proceedings in the matter can only be taken by a sanitary authority, and then only by the special consent of the Local Government Board.

Considering that, as we understand the matter, the Local Government Board will have no power to enforce action, this last clause will in many cases render the Act a dead letter, for in some places the pouring of tons of foul or corrosive liquid into a stream will not be likely to provoke the action of the sanitary authority.

On the other hand, an endless field for litigation is supplied in these clauses by the vague phrases "poisonous, noxious, or polluting liquid." No definition of any kind is supplied in the Act, and we have not here, as with the "best practicable and available means" dilemma, the simple, if doubtful, remedy of an inspector's certificate as proof. Every case must be fought separately, and will no doubt be vigorously contested by the manufacturer. We pointed out before that such trials, with their torrents of technical and conflicting evidence, could not be decided in a County Court, and power of appeal to the High Court of Justice is now provided. But such appeal, though necessary, would be costly and vexatious, and sanitary authorities, unstimulated by the London Board, would be sure to hesitate before attempting it. On the other hand, manufacturers, as a rule, would never accept the verdict of the County Court, so that it is easy to see that in a large number of cases—and those, perhaps, the worst—nothing would in practice be done. We are, indeed, strongly inclined to fear that this is the real object of the Government.

All this mass of confusion, all this prospect of unsatisfactory, expensive, and irritating litigation would have been saved if the Government had only had the courage to adopt the recommendations of the Rivers' Pollution Commission. That Commission was conducted for many years at vast cost by the first sanitary and chemical authorities of the day. Its conclusions, embodied in blue-books, some of which are already handbooks for the scientific world, are well considered and moderate. The standards of purity which it suggested are by no means extravagantly high, and are capable of easy application, and yet, when the time for action comes, the mass of valuable material thus accumulated is coldly laid aside as unworthy of consideration, and a crude, vague, and unreal measure is brought forward which, from the first, seems foredoomed to failure.

Possibly the present Government, "wiser in their generation than the children of light," are really only anxious to do as little, and thereby provoke as few enemies, as possible.

DR. J. MARION SIMS, in his Anniversary Address before the American Medical Association, delivered in Philadelphia on the 6th ultimo, touched on several topics which have excited, and will probably continue to excite, a good deal of attention on both sides of the Atlantic. On an occasion like a Centennial celebration, where people come together for the patriotic purpose of joining in it, for scientific discussion and for social communion, a certain amount of mutual admiration may be both anticipated and pardoned. And in the case of America the change that a century has produced is truly marvellous. Brief as that period is in the life of a nation, the population has increased in that time, Dr. MARION SIMS tells us, from three to more than forty millions, and all the time that the nation has been growing and developing in this way it has had to encounter and surmount the diseases, if we may so express it, incidental to the infancy and growth of a nation, no less than of an individual. The Americans of to-day rival the greatest nations of the earth in commerce and manufacture; for a hundred years has their form of Government continued, and they have, in that time, survived the fiercest civil war, and a series of experiments and fermentations enough to have caused a disruption of society. In addition to the effects of the civil war, the extension of the

suffrage to the slave population has taken place, together with the absorption of millions of uneducated immigrants, to whom the suffrage has also been given. The Americans are making a name, too, in science, literature, and art; and to their energy there is no end. But to Dr. MARION SIMS's address. After dwelling on such subjects as their code of medical ethics, which he thinks requires to be broader than it is, to adapt it to the exigencies of modern society; on medical education, and the evils attendant on the multiplication of medical colleges and private corporations running in competition with one another, from which no hope of reform can be expected; he passes to the question of State Medicine and Public Hygiene, and boldly addresses himself to that section of it which deals, or rather should deal, with the prevention of the spread of syphilis. We should have been glad to see the subject of the treatment of the insane in America alluded to, as it is one of extreme importance, and we shall ourselves take an early opportunity of commenting on it. So far as the well-being of the human race is concerned, Dr. MARION SIMS looks upon the subject of syphilis in the same light as Dr. SAMUEL GROSS does—namely, as the great question of the day. It is no longer, he contends, a question for the therapeutist, but one for the sanitarian, the philanthropist, and the statesman. "A greater scourge than yellow fever and small-pox combined is quietly installed in our midst, sapping the foundations of society, and poisoning the sources of life." Instead, however, of the legislation that looks to licensing prostitution, as in France, or the partial legislation of the Contagious Diseases Acts of England, he thinks we must manage to control the men who are likely to import the poison, while we obtain control over the women who assuredly disseminate it. And this may be achieved by an application of the two following propositions: a system of sanitary inspection and control that will prevent the importation of syphilis from abroad, together with another and similar system for detecting and taking charge of the subjects of syphilis at home. The existing boards of health in the various cities should have the same power over syphilis that they now have over cholera, small-pox, and yellow fever. In other words, syphilis should be included in the great family of contagious or communicable diseases, and subjected to the same laws and regulations. Simple as the application of these principles of action may appear theoretically, and easy as their application might be made, according to Dr. MARION SIMS, in America, we venture to doubt whether the strongest government in this country would undertake the task; but, be that as it may, we have said enough to prove that the control of the spread of syphilis is regarded among the medical profession in America as one of the most important questions of the day.

IT is announced that a conference will take place at Willis's Rooms on the 6th July, at which Lord Stanhope will preside, for the special purpose of considering the advisability of establishing, throughout the country, county boards to deal with sanitary matters in rural districts, as municipalities are empowered to do in towns. To this meeting medical officers of health, engineers, and members of boards of guardians of the National Health Society, and of the Ladies' Sanitary Society, have been invited.

Annotations.

"Ne quid nimis."

DR. BROWN-SEQUARD'S LECTURES.

IT is with much gratification we are enabled to announce that Dr. Brown-Séquard is about to deliver a course of three lectures on "Paralysis as an Effect of Organic Diseases of the Brain," at the Royal College of Physicians, on the 17th, 19th, and 21st of the present month. These three lectures will form but a portion, however, of those on the Physiological Pathology of the Brain, which, as we have already announced, their distinguished author intends to deliver in England during the summer. To complete the demonstration of the new views which Dr. Brown-Séquard seeks to establish, other lectures will be delivered at various places in England during the ensuing month of August. Meanwhile, we are authorised by Dr. Brown-Séquard to state that the lectures before the Royal College of Physicians and elsewhere will be published in the columns of THE LANCET, enriched with many more details than their author could give in addressing audiences of busy medical men. The reputation of the lecturer and the results he has already achieved in medical science, coupled with the fact that Dr. Brown-Séquard has for his object the demonstration of original views in connexion with a branch of study which he has more especially made his own, will impart an unusual degree of interest and importance to these lectures; and the Royal College of Physicians are to be congratulated on the fact of having afforded Dr. Brown-Séquard the opportunity of first addressing the profession through their College. The first of the series of lectures will appear in our number for the week ending 22nd instant.

THE HEALTH OF ROME.

THE health of Rome possesses an interest as "eternal" as the city itself, if we may judge from the persistency with which it is questioned and canvassed in the lay press. It is a subject on which everyone thinks himself entitled to be heard—no residence being too short, no experience too shallow, to qualify for its discussion. Unless this mania—for mania it is—receive some authoritative check, Rome will soon become as notorious a *campus* for medical controversy as she has always been for theological, and probably with the same result—that of increasing rather than of diminishing the number of pilgrims to her shrine!

The desiderated check, however, has come, and from the proper quarter—the collective opinion of the Roman physicians themselves. The exhaustive paper of Drs. Lanzi and Terrigi on the meteorological conditions and sanitary state of the city was discussed before an unusually large meeting of the Accademia Medica di Roma, and the following facts were clearly elicited and set forth. First, there is no fever peculiar to Rome; the intermittent which prevails in the late summer and early autumn being of a common, and certainly mild character, rarely or never fatal by itself, and dangerous only when supervening on some pre-existing malady. Secondly, typhoid is rarer in Rome than in any other Continental capital. This fact, demonstrable by statistics, is no more than what might be expected from her drainage, which is excellent, and from her water-supply, which is unsurpassed in abundance and purity. Thirdly, the undoubtedly high death-rate is due to causes quite unconnected with the climate and quite without risk for the foreign resident. Chief among these is the infantile mortality occasioned by successive visitations of small-pox under an imperfect vaccination system, and also by the pernicious prevalence of foundling hospitals, which weaken

the maternal tie, and cheapen infant life. Fourthly, for such illness as the foreign resident contracts, he has principally himself to blame, in attempting too much in a short time, and in neglecting the obvious rules of clothing and diet which the locality dictates.

If Rome were as dangerous for the visitant as she is represented to be, then the whole of last year and the first half of this ought to have yielded an exceptionally large death-rate. The jubilee brought thousands of pilgrims in 1875. The anniversaries of critical events in Pio Nono's career have been bringing thousands all the spring and summer of 1876. But what say the statistical returns? Malarious and typhoid fevers—the *bêtes noires* of the newspaper alarmists—were not only proportionately but absolutely less fatal in 1875 than in the two previous years, and less fatal in the first quarter of 1876 than in the corresponding quarter of 1875. The last eighteen months, moreover, would have been abnormally healthy but for one of the small-pox visitations above referred to, combined, in the beginning of 1876, with an epidemic of measles of a malignant type.

We have no wish, as we have no object, to represent Rome as healthier than she is; but in the interests of that great and increasing class of our fellow-countrymen to whom a visit to the city of the Cæsars and the Pontiffs is the cherished gratification of a lifetime, we have sought to dissipate the unwarranted reports that have been so industriously spread abroad to deter them. The native Romans are exceptionally healthy, and, as the recruiting returns show, exceptionally robust, among Italians. The Anglo-American colony enjoy as vigorous lives and reach as great a longevity as their relatives do in the mother country. And even as we write Catholic Rome is congratulating her most distinguished, if not her very oldest, inhabitant on having attained his thirtieth pontifical year, in a quarter of the city whose traditional unhealthiness he has defied for a whole lustrum.

VENTILATION OF PASSENGER SHIPS.

WE have frequently referred to the important subject of ventilation in connexion with emigrant and troop ships, and have lately noticed some particulars on this head with reference to school-ships, published in the half-yearly report of the Port of London Sanitary Authority. Passenger steamships have multiplied immensely during the past few years, stimulated by the opening of the Suez Canal, the general prosperity of the middle classes, and by consequence the impetus given to travel, on the score of business, of pleasure, and health. But naval architects and shipbuilders are still, as a rule, very careless as to the ventilation of even the smartest class of vessels built expressly for first-class passengers. The ship is, as a rule, designed and built before anyone concerned cares to begin to think how the inhabitants are to be supplied with fresh air below. There are, of course, skylights and ports, which in fine weather may be all-sufficient; but how about the condition of things when it blows a gale in the "Bay," or when, in the tropics, the thermometer stands at 90° Fahr. in the shade? We are aware that the Peninsular and Oriental and some other companies have made special provision for securing a fresh supply of air in the lower decks, but all arrangements here, as elsewhere, that we have seen, are of a piecemeal and unsatisfactory character. There appears, too, little excuse for inaction on this score, inasmuch as within the past ten or twelve years several systematic plans of ventilating ships have been tried and adopted. The arrangements carried out on board the *Serapis* and her sister ships, which are employed for the transport of Anglo-Indian reliefs through the Suez Canal, are excellent, and by no means complex. They consist in principle of (1) hollow iron beams, with numerous holes opening below, let into the upper deck on either side, and led eventually into the space between the double casing of the funnel; (2) steam-jets in various situations; (3) goose-neck up-casts all along the sides of the ship, opening above along the bulwarks; (4) up-cast and down-cast tubes, with common cowls led to and from the lowest parts of the ship. The hollow iron beams act automatically as carriers of the foul air from the inhabited deck, the air being drawn powerfully upwards into the funnel-casing by the heat of the inner lining. The steam-jets are used to create an artificial exhaust as occasion requires. The goose-neck up-casts and other tubes act as automatic auxiliaries, the latter being always kept trimmed head or stern to wind according as they are required as up-casts or down-casts. There is no practical obstacle to the adoption of any or all of these plans in an ordinary passenger-ship; but the details of construction must be specified when the lines of the ship are drawn. It may be taken as a rule that the exhaust is better than the plenum principle, and that if the foul air be extracted, plenty of fresh air will find its way into all parts of the ship without any artificial or automatic aid. This subject is well worthy the attention of the owners of passenger-ships, most of whom, in consequence of competition, are keenly alive to the necessity of promoting the comfort of travellers in every possible way.

THE PRESCRIPTION OF CONCENTRATED MEDICINES.

THE letter of Mr. James T. Tupholme, in THE LANCET of last week raises an important question for discussion, and one which should be settled amicably between physicians who have to prescribe and chemists who have to dispense poisonous drugs. The chemist in question was required to dispense the following prescriptions. We give them literally:—

"℞ Liq. strychniæ, ʒj. Fiat gutt. A teaspoonful to be added to six ounces of water. A tablespoonful to be taken twice daily before meals."

"℞ Liq. sodæ arseniatis, ʒj. Fiat gutt. A teaspoonful to be added to six ounces of water, and a tablespoonful to be taken twice daily after meals."

Without specifically answering the four questions of our correspondent, we may say that we think the prescription of such quantities of a strong solution of the strongest poisons most objectionable. In the present instance the ounce of solution of strychnia prescribed contained four grains of strychnine, and the ounce of liq. sodæ arseniatis four grains of arseniate of soda. One drachm in six ounces would last six days. This quantity, multiplied by eight, would last forty-eight days, or all but seven weeks! The objections to such a prescription are very obvious. To say the least, it is not in accordance with an instruction of the Pharmacopœia, under the head of Arseniate of Soda—"To be used cautiously"; an instruction, of course, equally or more applicable to strychnia. It is frightful to think of ounce bottles of solution of strychnia having to be brought weekly out of their hiding place, to be emptied by rough teaspoonfuls at a time, and of the various accidents that might happen in connexion with them. This kind of prescription leaves an important part of the dispensing to be done by the patient or his friends. Presumably, he is required to measure accurately a drachm of solution of strychnia. He is told to do this by a teaspoon. Accuracy, of course, is very important. But by this method accuracy is impossible. Teaspoons vary in capacity. Of two teaspoons at our hand both hold, not a drachm, but a drachm and forty minims. This quantity in six ounces of

water would give, not five-minim doses, but eight and something over. Considering that toxicological effects have been seen from five-minim doses of solution of strychnia, it is obviously objectionable to leave the patient to do his own dispensing with measures that may give him eight minims instead of five. We have said nothing about the chances of error on the part of the patient in regard to the amount of water to be mixed with the teaspoonful of solution of strychnia. How is he to measure six ounces? Or to judge between a six-ounce and a four-ounce bottle? Besides, bottles themselves ostensibly of the same size vary seriously in capacity, as will be seen from the remarkable facts in a correspondent's letter written quite independently of this question. There is another serious objection to the mode of prescription. It supplies the patient with medicine for far too long a period. Strychnia is not, like mercury or digitalis, a cumulative poison, but it is one which acts very irregularly on different subjects, rendering it very important that when a patient is taking the full minim dose of the drug he should be seen at short intervals. Finally, though we are no advocates for large charges by chemists, we think it due to them that dangerous medicines should be compounded by them ready for the patient's use, and that for so doing they should have reasonable recompense, which can scarcely be the case when they supply a wholesale stock of uncompounded preparations, as in this instance. Though we cannot say that a chemist would be justified in refusing to dispense such a prescription, he could not be blamed for giving a caution as to its nature, and all such observations are very objectionable. Many patients would be most injuriously affected by such a caution.

RELATIONS OF MEDICAL WITH RELIEVING OFFICERS.

THE case of Charlotte Hammond is noteworthy for nothing more urgently than the singular misconception of their position, not to say their public duty, shown by medical officers in their dealings with relieving officers. The chairman of a Relief committee who thinks a relieving officer has the power to question the authority of a medical officer's certificate, should be requested to take three months' holiday and study the Statute Book. Neither Relief committees nor their district officers take power from the Board of Guardians; the question is one of law. The issue involved is not of a nature to be settled by the Local Government Board. It is a point which must be adjudicated by one of the superior courts, and to this end medical officers ought to remember the duty they owe to the public, and act as humanity dictates. In plain truth a medical officer has nothing to do with the question of need, or with any proposal to remove a patient to the workhouse. A medical man steps out of his province and exposes himself to insult and injurious misrepresentation when he attempts to facilitate parish or union business. While a patient is under his care by "order" of the proper authorities, it is his duty to prescribe food and medicine as the case requires. He must also see that the instructions he gives in due form are carried out. If the parochial authorities demur to the "necessaries," and prefer to remove the patient to the workhouse, that is their affair. A medical officer is not justified in allowing any patient under his care to starve. The legal course is to give the relieving officer formal notice of his intention to refuse a certificate in case of death and to discontinue attendance. A fixed number of hours' notice should be given, and copies of the documents, the notices, and the orders for necessaries should be sent to the clerk of the Board of Guardians by the same post or delivery. The interval should be long enough to give the clerk time to act, but not too long, so as to seem to sanction delay. Medical officers would do wisely not to hold personal communication with relieving officers on the subject of their cases. No one, except the medical officer himself, is qualified to judge the question of necessity. The point ought never to be discussed, even with the Board. The obvious answer to any query is: "As a legally qualified and responsible practitioner I prescribe such necessaries as appear on my certificate. They must be supplied, or the patient at once removed from my care. It is for the parochial or union authorities to determine which course shall be pursued, but pending the decision let it be distinctly understood I hold these authorities responsible for obstructing me in the discharge of my public duty as a medical practitioner, and shall decline to give a certificate in the event of my patient's death." If medical officers would take this clearly defined position, decorously but firmly, the grave issue now raised would be promptly adjusted, and medical officers under the local government authority would know how far their position is tenable and how to act.

THE OPEN METHOD OF TREATING STUMPS AFTER AMPUTATION.

WE have been favoured by Dr. Frederic S. Dennis, house-surgeon of the Bellevue Hospital, New York, with a reprint of a recent paper by him from the *New York Medical Journal* on the treatment of amputations by the open method. The paper is of great practical value, detailing, as it does, the particulars of ten consecutive cases of amputation, all but one primary, of the thigh, of the leg, of the arm, and at the knee, treated by Dr. James R. Wood, in wards which had been vacated twelve months previously, on account of puerperal fever. The cases were generally bad cases of compound comminuted fracture in patients of very drunken habits. The results were rapid recovery without one death; very mild suppurative fever, in which the temperature never exceeded 103°, but was much more frequently very much lower; in no case was there erysipelas of the stump, or abscess, or sloughing, and the resulting stump was very satisfactory in form and for the purposes of an artificial limb. Dr. Dennis justly claims for Dr. Wood the great credit, not of originating this method of treatment, which, indeed, has been practised by Dr. Humphry of Cambridge, Mr. Wheelhouse of Leeds, and others, but of introducing it and carrying it into practice in the United States.

Dr. Wood attaches the greatest importance to his method of operating, by which he makes two lateral skin-flaps, cutting the muscles circularly at a point so high up that the flaps shall be composed principally of skin. The important point in this method is to make the lateral skin-flaps long, so as to allow for shrinking, and not to separate skin without its subjacent cellular tissue. After a limb has been amputated the flaps are not even approximated, but left entirely open; a pillow of oakum is placed under the stump, which is allowed to rest on this support until the wound is nearly healed. A small piece of gauze is put over the contour of the stump, and a cradle placed over the limb. This is all the dressing employed. No bandage, no plaster, no charpie is used. The stump is left entirely alone. The wound is left to drain freely, and the stump is gently washed at frequent intervals by means of Esmarch's wound douche, the water being impregnated with crystals of carbolic acid, and after this ablution balsam of Peru is poured over the granulating surface. This method is like Mr. Lister's in being antiseptic in principle, and great care is taken to preserve the cleanness of instruments and hands by washing them after every dressing in carbolic acid. Anyone dressing unhealthy wounds in the pavilion or making autopsies is not allowed to assist. As we have said, secondary fever is almost ob-

viated. A careful analysis of cases in the Bellevue Hospital shows the highest temperature reached in suppurative fever, in cases treated openly, to be about equal to the very lowest temperature during fever in any of the cases in which the stumps have been closed. At the end of a week the stump is capable of being moulded into any shape the surgeon may fancy. When suppuration has nearly subsided, the flaps are gradually approximated by adhesive plaster. The profession is much indebted to Dr. Wood and Dr. Dennis for drawing attention to this method of treating stumps and other suppurative wounds, such as that of an amputated breast. It really deserves a very thorough trial.

THE LONDON UNIVERSITY AND THE VIVISECTION BILL.

ANOTHER powerful protest against the Vivisection Bill of the Government has to be noticed, that of the Senate of the University of London. The question came before the Senate at its meeting on the 21st inst., by the reading of a letter from the Registrar of the General Medical Council, enclosing the memorial of the Council against the Bill; thereupon Sir William Gull moved, "That the Senate do memorialise the Government on the Bill now before Parliament, entituled an 'Act to Prevent Cruel Experiments on Animals,' and do pray that the provisions of this Bill be so modified as to meet the objections stated in the memorial of the Medical Council adopted 1st June, 1876." On the question being put the following members said "Aye":—The Chancellor, Lord Acton, Lord Kimberley, Lord Overstone, Mr. Fitch, Sir Philip Grey-Egerton, Sir William Gull, Mr. Lowe, Dr. Quain, Lord Arthur Russell, Dr. Sibson, Dr. Sharpey, Mr. Spottiswoode, Dr. Storrar. The following members said "No":—Lord Cardwell, Mr. Fowler, Mr. Hutton, Mr. Osler. There were thus fourteen Ayes against four Noes; and when the list of the Ayes is analysed and considered it must be regarded as one of the most gratifying proofs that the claims of medical science to be trusted and respected are not permanently to be forgotten. Of the majority of fourteen supporting Sir William Gull's motion nine were laymen, and laymen of no mean weight. Physiologists, and medical men generally, will be reassured, and will begin to feel that they may pursue their investigations in peace, without being molested by policemen, in the true spirit of that religion which tells us that man is of "more value than many sparrows." We congratulate both Sir William Gull and the Medical Council on the support of the Senate of the University of London in their opposition to a Bill which, in its first form, was offensive to the profession, and injurious to the true interests of man and animals. We venture to hope that still further concessions will be made by the Government in the House of Commons, in the direction of trusting implicitly men of science. They should be allowed to pursue their investigations in any place and at any time convenient to them, and without being required to report to the Home Secretary.

THE LOCALISATION OF DISEASE.

A ROUGH and ready method of nomenclature has long been popularly employed in regard to disease, which consists in coupling almost every malady of a febrile type with the name of the place at which it was contracted, or, more commonly, where its symptoms first manifested themselves. We hear of Mediterranean fever, Rock fever, in connexion with Gibraltar, Roman fever, Maltese fever, and so on, and people seem to think that, in this way, cause and effect are coupled together; and even professional men find it easier to yield to the influence of popular opinion, and employ the terms or expressions by which such diseases have been characterised as so many convenient labels for them. This very loose method of nomenclature has, however, a good deal to answer for. A particular climate gets a bad name for occurrences which have nothing whatever to do with the climate, but everything to do with the ignorance or neglect of sanitation of the inhabitants, and in that way no effort is made to remedy evils that quite admit of being remedied. We hear old Anglo-Indians speak of Peshawur fever, and they are, to a great extent, fully justified in doing so, because the fever is one of peculiar severity in point of degree, but it is of malarious origin, the causes of which are prevalent in many other parts of India besides Peshawur. Intermittent fever may no doubt be contracted in Rome and other parts of Italy; but from all we learn we have little hesitation in declaring that typhoid fever of various degrees of severity contributes a considerable proportion of the total number of cases of sickness among tourists, of which we hear accounts from time to time. There are, of course, some forms of fever common to warm latitudes, consisting of short and sharp attacks of fever of a few days' duration, and attributable to excess or errors of diet, congested liver, and exposure to the sun; but the dangerous fever, which is far more common than people imagine in these positions, is typhoid. Instead of arising in the place where the patient was attacked, it often happens that the disease has been contracted elsewhere *en route*, as at Naples for instance; but, to do the Continental towns justice, they present no very marked difference in regard to the prevalence of conditions capable of generating or developing typhoid fever. Fortunately the great majority of travellers live in the open air, drink but little water, and the exercise, excitement, and change of scene tend to keep them in health.

TAKEN UPON TRUST.

WE are told that shipowners and ship-captains are plagued and worried with official supervision and interference, that they are inspected to death, and that no other trade is subject to so many vexatious restrictions. When the Merchant Shipping Act of 1867 was being discussed in committee, it was suggested that the contents of medicine-chests should be subjected to some sort of systematic examination. But the Board of Trade did not care to take the matter up, did not then (and do not now) possess any staff competent to undertake the duty, and so nothing was done. Hence up to and at the present time the contents of medicine-chests sent to sea for the benefit of the crews of ships, are, of course, taken upon trust. When the ship carries a surgeon, we take it to be the duty of that officer to look over his drugs and instruments before starting, and an opportunity of doing so is always given by every respectable shipowner, who very properly permits his medical officer to order extra articles *ad libitum*. But how about the ships that start daily from London, Liverpool, Glasgow, and other ports, for ocean voyages, with large crews, but no passengers, and, therefore, in most cases, no surgeons? The shipowner, master, agent, and ship's husband know nothing about drugs, even if they had the time, inclination, or opportunity to utilise such knowledge for the benefit of their employers. The Adulteration Act cannot, for obvious reasons, be brought to bear upon such cases, and so, practically speaking, the buyer is entirely at the mercy of the vendor, and this, too, under circumstances where every incentive to chicanery exists. We do not herewith assume that all or very many fitters of medicine-chests are dishonest men. But, if memory does not deceive us, some sort of official or semi-official inspector of medicine-chests was carried in emigrant ships not very many years ago, when the person appointed to examine the medicines himself supplied the

main part of them. We do not at all doubt the ability of the examiner in this case, but question the wholesome diplomacy of the system quoted. Although this system does not now exist, there are good grounds for believing that an examination of drugs sent to sea would show that a great deal of unfair material is shipped, both from London and Liverpool. If, as we have recently heard, such drugs as spirits of nitrous ether and iodide of potassium are despatched palpably adulterated, it is manifestly the interest of all good-class chemists to advocate an official inspection, so as to drive out of the market the vendors of adulterated goods. It is necessary as well as advisable to look to the commercial rather than the philanthropic aspect of the question, although, as to the latter, nothing can be more cruel or dishonest than to send worthless drugs for medicinal purposes to a place where no other supplies can be obtained.

THE ANNUAL REPORT BY THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE second annual report by the President of the Royal College of Surgeons of England has just been issued. In little over eleven pages Sir James Paget has given a concise but comprehensive summary of business that has been transacted at the meetings of the Council during the past year. It is scarcely necessary to notice the report at length, inasmuch as we have been enabled from time to time to acquaint our readers with what has been done at the meetings of the Council, and have regularly discussed the more important questions that have been considered there. There are, however, some matters to which we shall briefly refer that deserve constant attention.

The great events of the past year have been the adoption of a Board of Examiners in Anatomy and Physiology distinct from the Court of Examiners; the passing of the "Enabling Act"; the renewal of the negotiations with the other English medical authorities for the formation of a scheme for a Conjoint Examination Board in England; the discussion of the question connected with the admission of women into the medical profession, and the granting of the certificate of qualification in midwifery to women; the adoption of the amended regulations for the admission to the Fellowship by examination; and, lastly, the interview with the Earl of Carnarvon to state to him the strong objections entertained by the Council to the title of his Bill, to the narrow limitation which the Bill would put on the range of permitted physiological experiments, to the making it illegal to use the only carnivora useful for experimental purposes, to the permission of charges by common informers, and other provisions of the Bill. All these measures have been briefly, but intelligently discussed by Sir James Paget in his admirable report. We shall at an early period return to the consideration of some of his arguments and opinions.

THE BOARD OF TRADE.

IT is a pity that the Board of Trade do not make use of their medical adviser, if, indeed, such an officer exists. It appears that the department referred to the Medical Council a report from one of their mercantile marine superintendents to the effect that, as a matter of convenience, in entering ship surgeons for service afloat it would be desirable that the registrations be endorsed upon the diplomas, inasmuch as these officers must be "registered medical practitioners." The adoption of this suggestion would be, however, entirely superfluous. Every registered practitioner is recorded in the Medical Register of the United Kingdom, and we can hardly believe (although we have heard it stated) that the authorities at Whitehall decline to provide their marine superintendents with a copy of this book every year. However, that and other incidents that have lately transpired show pretty clearly that, although the Board of Trade is constantly made an official referee in matters medical, the department has no one on the staff to whom such questions can be properly referred, and so this work (which was the legal work of the department until within the last twelve months) is scrambled through in a jobbing, perfunctory, and therefore very unsatisfactory manner. The Board is now charged with the administration of all sanitary measures relating to persons afloat in British and colonial vessels, whether as seamen, passengers, or emigrants, and it is manifestly absurd that under these circumstances there should be no medical adviser at head-quarters.

THE HOSPITAL SUNDAY COLLECTION.

THE friends of this movement—and there are few who are not friends to it—will be much gratified by the more copious influx of money than on the immediately preceding occasion. Up to the end of the first week after the Hospital Sunday, the sum received exceeded by £4000 the sum received at the corresponding time last year. Wednesday's papers of this week announce the receipt of over £23,000. This is in excess by a thousand pounds of the sum a day later last year. We may hope, therefore, that the reproach of the falling off in the amount raised from year to year will be wiped off. But it is too soon to be elated. Up to Wednesday the sum reported was less than that for the corresponding time in 1874. Let us hope, however, that when the whole is gathered in the sum of £30,000 may be realised, and that every medical institution, without exception, having the care of the sick poor for its object will be so dealt with as to be satisfied that the institution of Hospital Sunday is a practical benefit to it. The growing favour in which the Hospital Sunday is held is doubtless due to the almost perfect satisfaction with the manner in which the distribution of the fund is managed, and the absence of that disagreement which was not unnatural at the beginning of such an undertaking.

THE CAUSES OF ENTERIC FEVER IN INDIA.

THE last Army Medical Blue-book contains some observations which are apparently addressed more especially to the followers of the new creed that has been started of late years by a great Indian medical statist, regarding the causation of enteric fever in that country. After adverting to the reasons that may be assigned for the prevalence of this disease among young soldiers, and especially those recently arrived in India, it is added that there are notices in the reports of some medical officers which seem to indicate their belief that enteric fever, as seen in Bengal, is, in a special sense, a climatic disease. As the practical effect of the acceptance of this view would be to paralyse efforts to control this form of fever, it is deemed necessary to recall to the mind of those who, having seen enteric fever in apparently well-ordered barracks, where no cause for its appearance was detected, are inclined to adopt the climatic theory of its origin, that enteric fever as seen in India differs in no particular from the same disease as seen in cold and temperate climates; the same symptoms and identical morbid lesions characterise it in every country. Overwhelming evidence exists to show that it has its origin in the vitiation of air or water by excremental pollution. It is conceivable—most probable even—that an extreme heat may intensify the infective influence which gives birth to enteric fever, and may determine its greater extension in tropical climates amongst susceptible persons, particularly amongst the newly arrived, in whose constitutions an un-

accustomed heat must produce a weakening disturbance; but it is opposed to all analogy to infer that this specific fever may be the effect of one cause in the cold of Canada, and of another in the heat of Bengal. If any new facts come to light respecting the origin of enteric fever, all who are cognisant of them render a service in reporting them; but until the number and force of the facts overthrow the belief regarding its causation now so generally held, it can only be right to act on the evidence that enteric fever may be arrested, or its spread limited, by suitable sanitary measures; and though admittedly there are not infrequent instances where such measures, though most intelligently applied, fail to repress the disease, the failure must be ascribed rather to an imperfect acquaintance with the whole problem of a particular outbreak than to an erroneous conception of its cause.

THE UNIVERSITY OF DURHAM AND MEDICAL DEGREES.

The authorities of the University of Durham have it in contemplation to make a new regulation whereby it will be possible for medical men of a certain age to obtain a medical degree without the condition of residence which now obtains in this and other British universities except that of St. Andrews. Briefly the conditions will be to this effect: that a good examination in arts must be passed; that a very good professional examination will be instituted, the examiners being unconnected with the University; that a candidate must have reached the age of forty, and must have been in practice for a period of fifteen years. Assuming that the examinations will be of a sufficiently stern character, we think this step of the northern University one on which it may be fairly congratulated. The University has never had an occupation as a degree-granting body, at least as far as medical degrees are concerned. The institution of this system will give it an occupation which may be made most honourably useful. But we would, even at this stage, warn the University against making the examination too easy or such merely as is necessary to obtain one of the ordinary qualifications to practice. The examination must be a test of professional merit and of general culture, or both the University itself and the profession will suffer, and the approval of the Medical Council will be withheld. There is a real need in this country of a good degree to be had without the condition of residence. But the absence of this condition requires the addition of some severity to the examinations. If this is observed a real want will be supplied without harm being done, and good practitioners will have a wholesome stimulus to keep up their general and professional knowledge.

THE STATISTICAL SOCIETY AND THE CONTAGIOUS DISEASES ACTS.

Neither Mr. Stansfeld's paper "On the Validity of the Annual Government Statistics of the Operation of the Contagious Diseases Acts," read on 21st June before the Statistical Society, nor the discussion which followed, added much to our knowledge of the facts relating to this unpleasant subject. Mr. Stansfeld, in his paper, condemned the statistics published in the Army and Navy Medical Reports as untrustworthy and "not impartial." These charges, especially the last, which Mr. Stansfeld sought to explain away in his concluding remarks, were met and, as it appears to us, refuted by Dr. Balfour, under whose immediate superintendence the army statistics were compiled, and Inspector-General Lawson, who was enabled to point out many statistical and medical errors into which Mr. Stansfeld had fallen in his paper. In fact, Mr. Stansfeld, however capable he may be to deal with the political and social aspect of this question, needs both the statistical and medical knowledge requisite to deal successfully with the figures which have been issued by the medical departments of the army and navy. No amount of ingenuity in the system of comparison can disguise the marked decline in the ratio of primary venereal sores, which at the stations ultimately brought under the Acts averaged 130 per 1000 per annum in the four years, 1860-63, before the Acts were passed; declined to 87 per 1000 in the six years 1864-9, when the Acts were partially in operation; and further declined to 52 in the four years 1870-3, when they were in full operation. With regard to Mr. Stansfeld's strictures upon the police statistics bearing upon the effects of the Acts on prostitution at the protected stations, no discussion took place, and we must confess that we should have little faith in any statistics on this point; not even in those supplied by the authorities of Rescue Societies, upon which Mr. Stansfeld places so much reliance. We cannot think that the Statistical Society was judicious in devoting an evening to the discussion of a paper on this subject; a subject which political agitation has removed from the field of dispassionate criticism. It would scarcely be more useless to devote a meeting to the discussion of the validity of the Government statistics of vaccination.

POOR LAW (SCOTLAND) BILL.

This Bill went into Committee on Tuesday, the 27th, and was strenuously objected to by Mr. Baxter, who was followed by several other members, with one exception only derived from the Liberal Opposition. Having carefully read the clauses of the Bill, the voluminous body of evidence taken by the Select Committee on Scotch Poor Relief and their report, from the recommendations in which the clauses of the Bill are drawn, we are at a loss to understand the *raison d'être* of the opposition this measure has encountered. Mr. Trevelyan denounced the Bill as being calculated "to destroy self-government in a country which was the most self-governed in the world"—we will add, so far as the sick poor, their medical attendants, and the ratepayers are concerned, with the worst possible results, as must be apparent to anyone who will be at the trouble of investigating the statistics of Scotch sickness and mortality, and the cost entailed on the community, as exhibited in the annual report of the Board of Supervision.

That the Government can carry the measure, if determined so to do, there cannot be the slightest doubt; but what we fear is, that the Lord Advocate, from pure amiability of disposition, may be disposed to yield some of the important principles contained in the Bill, in order to lessen the hostility of its opponents.

So far as the profession is concerned, the Bill contains all that we have ever striven for—viz., salaries with due regard to population, extent of the parish, and the number of paupers; drugs to be found by the parochial boards, exclusive of the stipends; tenure of office determinable only by the Board of Supervision after proved misconduct; and superannuation on recognised principles.

The adjournment of the debate was moved by Dr. Cameron. Without attempting to anticipate his views, we hope that the real or fancied exigencies of his political position may not lead him to oppose a measure so calculated to benefit the profession for which he was educated. We heartily trust that the other members of the profession who have seats in the House will support the Lord Advocate's measure—Sir Trevor Lawrence, from his political bias, and Dr. Lush and Dr. Brady, from their long-tried advocacy of professional interests.

THE ARMY MEDICAL SERVICE.

Mr. Gathorne Hardy's utterances in Parliament have the merit of being clear and to the point, at any rate. In answer to a question from Dr. Ward, the War Minister stated—what indeed had been already declared by the last Warrant—that the attachment of medical officers to corps for any definite period had been abolished, that the Medical Department was "unified," and that a general roster for foreign service would be established. It is said to be impossible to work the department with the limited number of medical officers available for foreign service; and it is probable that the War Minister had this in view in speaking so emphatically as he did in favour of unification, when introducing the Army Estimates. That this ruling will be distasteful to those prejudicially affected by it is clear enough, but whether it will be equally distasteful to the department as a whole is another matter, for it will have the effect of distributing and equalising the amount of foreign service, and of giving to many officers a larger amount of home service than they could otherwise expect to fall to their lot. It will also, we may conjecture, have an effect in accelerating promotion by the retirement of those officers who, on the grounds of health and other causes, are unwilling to proceed abroad when their turn comes to do so. Meanwhile, the department is anxiously looking out for the *Gazette*, which, like the Warrant, seems to hang fire amazingly.

THE ROYAL SOCIETY AND THE LONDON UNIVERSITY.

The Senate of the London University has just been asked by Mr. Huxley, as Secretary of the Royal Society, to give its permission to the President and Council of the Society to deposit in the library of the University a complete set of the "Philosophical Transactions," on the understanding that the University shall be at liberty to make use of the books, but not to lend them out, and that the Royal Society shall be entitled, after due notice, to take them back. The Senate has readily accepted the offer and instructed its registrar to thank the President and Council for their liberality in allowing one of the few complete copies of the Transactions to be accessible to the graduates of the University. It is much to be desired that the Royal Society were in a position to make so generous an offer to other learned bodies.

THE MEDICAL PLEA FOR HOSPITALS.

"A Hospital Surgeon," writing to *The Times*, advances as an additional, he would say the chief, reason why hospitals should be supported, the value of their work as training schools for students and spheres of practice for medical men. This is an argument the profession must keenly appreciate. It might even be hoped that the common sense of the public would also appreciate the spirited line of advocacy adopted. Unfortunately, however, the community at large is not fully alive to the importance of study and practice. There seems to be a notion abroad that physic and surgery are two finished arts or fixed sciences, that there is nothing more to be learnt, or to be proved, for which research and experiment are necessary. It would be a dark day for medicine if the pursuit of fresh knowledge were rendered impossible, or even hampered with new difficulties. Perhaps the professors of our art have not hitherto been sufficiently self-assertive. Busy practitioners know the priceless value of school-work, and daily reap the advantages of hospital practice. Patients gain the benefit of labours performed away from the public eye. Not a few of the most prominent benefactors of the suffering world are unknown beyond the wards of their hospitals, their lecture-rooms, and their laboratories. It is well the practical worth of work done unobtrusively for the public should be brought under public notice, and while the benevolent give money to help the poor, they should be reminded that they are giving also to augment the stock of medical knowledge available for all classes, the rich as well as the poor, the million—no less than the hundreds of thousands who, in their hour of need, repair for succour directly to the hospital.

MEDICAL FESTIVITIES.

This week has been a very gay one for the medical profession. On Tuesday evening a large company of ladies and gentlemen were entertained most brilliantly at the Royal College of Surgeons by Sir James and Lady Paget. The museum was especially effective and entertaining, the skeletons of megatheriums, whales, elephants, &c., being finely set off by contrast with the living beauty and fashion of the time, the bones looking decidedly less dry and more interesting than usual. Not the least pleasing and surprising thing was to notice the energy of hospitality which Sir James and Lady Paget displayed from the beginning of the evening to its close. The whole of the arrangements were in admirable harmony, and the occasion will be long remembered by those who had the good fortune to be present. On the evening following, the President and Council of the College of Physicians held a *conversazione*, which was very numerously attended, and remarkable for the variety of interesting objects and the number of illustrations of recent scientific inventions, theories, &c., including the new writing machine, an apparatus for illustrating Helmholtz's theory of sound, toughened glass, &c. &c.

PHYSICIANS AND DRUGGISTS.

A well-known and respected provincial surgeon has written to us complaining of irregular conduct on the part of a physician of some standing. The case is briefly this:—A patient of Mr. ——, without his knowledge, came up to London to consult Dr.——. That gentleman gave the patient a prescription, with injunctions to get it made up at a certain chemist's. The prescription was this:—"Mist. ferri c. strych., j. t. d." The medicine not suiting, another visit was made, and another prescription given. This was—"Pilulæ tonici xii.; i. ter die." We need hardly say that neither of these formulæ is to be found in the Pharmacopœia; they are private receipts, so that only a favoured chemist could dispense them. We regret to find a physician of recognised repute and position bending to this practice, and can only say that it seems to us a matter on which the College of Physicians should express a strong opinion. We decidedly think it is contrary to the spirit if not the letter of the bye-laws.

DRINK IN LIVERPOOL.

A borough magistrate in Liverpool has been making a rough, but, he thinks, not excessive estimate of the cost of drink in Liverpool, and he has arrived at the conclusion that the annual expenditure on drink in that town is at least £2,831,000, well on to three millions. We don't know by what set of considerations the people of Liverpool are to be induced to diminish this blot on their otherwise goodly reputation—whether financial, or medical, or religious; but on all these grounds every man and woman in Liverpool should feel bound to reduce this expenditure till it reaches one-seventh of its present amount. Next in evil import to the wide prevalence of the habit of drinking in Liverpool is the time of drinking and the custom of drink-

ing spirit, so that men of business and their clerks will be seen drinking spirit in the mornings and the afternoons in a way little seen in London. It is even said that in the latter part of the day considerable sobriety is recovered. From our medical point of view, we should advise good people in Liverpool to aim at two improvements in the habits of the town, and to further them by their own example. First, as a rule, not to drink before dinner; and secondly, to reduce the amount drunk very considerably. The disease of Liverpool and its drinking will be reduced *pari passu*.

THE EXCITABILITY OF THE HEART.

IN a recent note on the excitability of the heart, read before the Académie des Sciences, M. Marey shows that this organ, at each phase of its revolution, undergoes changes of temperature which modify its excitability. Experiments demonstrate that the excitability of the heart, like that of other muscles, augments and diminishes with variations of temperature, and his experiments also demonstrate that the excitability of the heart changes at different phases of its revolution. This leads us to ask whether the temperature of the heart does not vary at different instants of its revolution, and also whether the succession of these variations is not such that the period of cooling corresponds to the phase of least excitability?—and further experiments have enabled him to return an affirmative reply to both these questions. The heart increases in temperature whilst it executes its mechanical work, and cools down as it relaxes. The moment when the heart is coldest, and consequently least excitable, is that when it has accomplished its period of cooling down. This will be the *début* of the systolic phase, and experiment is now in full accordance with theory.

LUNATICS IN WORKHOUSES.

AN inquest was recently held at the Ulverston Union Workhouse on the body of a lunatic who committed suicide on the afternoon of the day of his admission. It appeared in evidence that although it required five men to convey the deceased lunatic to the Barrow Police-station, from which he was transferred to the workhouse, he was admitted as an ordinary pauper, and no precautions being taken, he cut his throat with a penknife he was allowed to retain in his possession. The catastrophe was evidently due to looseness or irregularity in the reception of the lunatic. The guardians sought to exculpate their officials by asserting that the master of the workhouse was not informed as to the man's real condition; but it should clearly be the duty of the master of the workhouse, or of some competent official, to inform himself of the condition of in-paupers when they are admitted; and the fact in this case of the pauper being delivered to the workhouse authorities by two constables should alone have ensured the requisite examination and precautions. The other paupers in the Ulverston Workhouse are to be congratulated that the lunatic's mania assumed a suicidal instead of a homicidal form.

A DAY IN THE COUNTRY.

Now that summer has really come at last, it will do those people who are anticipating enjoyment from their holidays, and wondering, perhaps, where and how they can spend them so as to avoid old haunts, to remember the numbers of poor boys and girls in this big city who are wondering whether they shall get a holiday at all. These, and such as these, are not fastidious as to time and place; they have to content themselves with a day in the country, and were it not for an annual "outing" provided by donations and subscriptions, hundreds of the very poor children in the East of London would not see the country all the year round. The managers of the Hackney Juvenile Mission are anxious to provide for 500 boys and girls attending their mission schools a day in the country, and have appealed to us to aid them by giving publicity to their wishes. Donations, however small, will be thankfully received by the honorary superintendent, Mr. J. Newman, or by Mr. A. A. Knight, the Broadway, South Hackney.

THE PUBLIC HEALTH BILL (IRELAND).

THE Public Health Bill (Ireland), now before the House of Commons, was introduced by Sir Michael Hicks-Beach and the Solicitor-General for Ireland, and is intended to effect for sanitary legislation in Ireland what was effected for sanitary legislation in England by the Public Health Bill, 1875. It is a Bill, in short, for consolidating into one Act, and amending where required, the various provisions with respect to sanitary matters and burial-grounds of twenty-six Acts now in force in Ireland. The principles of consolidation which governed the construction of the English Act appear to have governed also the construction of this Bill.

THE YORK RURAL SANITARY AUTHORITY.

THE York Rural Sanitary Authority, which a short time ago reduced the salary of its medical officer of health one half, namely, from £200 to £100, apparently on the ground that he had done his work so efficiently that there was little left for him to do, and thereby lost him, is still in a difficulty about the matter. No candidates have come forward to fill the vacancy, and the Authority is now reduced to the necessity of offering £150 to tempt applicants. It appears to be difficult to get a man who, whether he be an efficient or an inefficient officer, must equally look to a reduction of salary as a reward or punishment, as the case may be, of his exertions or neglect.

SIR WILLIAM FERGUSSON.

WE are happy to be able to report that during the past week Sir William Fergusson has continued to improve. He has slept well, the dropsical symptoms have almost entirely passed away, and he has been able to walk daily into another room on the same floor.

WE beg to remind the Fellows of the Royal College of Surgeons of England that the annual election to the vacant seats in the Council will take place on the 6th inst., at two o'clock in the afternoon. The candidates are—Messrs. John Simon, George M. Humphry, and Luther Holden, who are retiring from the Council in rotation, but who have consented to seek re-election. Mr. E. Law Hussey, of Oxford, Fellow by Examination, 1849; Mr. William Adams, of London, Fellow by Examination, 1851; and Mr. C. G. Wheelhouse, of Leeds, Fellow by Examination, 1864, are the new candidates. There are altogether four vacancies.

THE Local Board District of Keighley and the Rural Sanitary District of that Union have now been for nearly three months without a medical officer of health. When the Keighley Local Board decided not to reappoint their late medical officer of health, Mr. M. W. Hilles, whose fault was that he had rendered them too zealous service during the small-pox epidemic, they advertised for another officer, offering the magnificent salary of £50 a year. They have not yet succeeded in filling the vacancy, and it may even yet be hoped that an arrangement may be made to combine the urban and rural sanitary districts for the purpose of appointing one medical officer of health.

DR. TAYLOR, the Chairman of the Health Committee of the Liverpool Town Council, at a recent meeting of the committee, when the present outbreak of small-pox was under discussion, remarked that everything pointed to the urgent necessity for some compulsory registration of cases of infectious diseases. There are few who dissent from this proposition, and yet its realisation appears as far off as ever. The Liverpool Health Committee, with a view to check the spread of small-pox, have addressed a circular to all medical practitioners, ministers of religion, and managers of schools, within the borough, asking them to send early information of small-pox cases to the medical officer of health, and also to use their influence to secure revaccination whenever it appears desirable. The deaths from small-pox in Liverpool, which were 26 in the first eighteen weeks of this year, rose to 68 in the seven weeks ending the 24th of June.

ANTI-VACCINATION agitation has been for some time especially active in Dewsbury, and, according to report, has been so productive of mischief that there are said to be at the present time no less than 6000 unvaccinated children within the union. A number of persons were recently summoned before the Borough Court for neglecting to vaccinate their children. The consequence of a chance introduction of a case of small-pox into the midst of these unvaccinated children is alarming to contemplate. That so wholesale a neglect of vaccination should be possible in England is a suggestive commentary on the way in which the Vaccination Laws are carried out by the Poor-law guardians. Vaccination should without delay be placed under the control of the sanitary authorities and of their medical officers of health.

AMONG things not (as we take it) generally known is the existence of leprosy in an endemic form in Cape Colony, and, indeed, in South Africa generally. The Colonial Government has two establishments for the reception of such cases, one situated on Robbin Island, the other in Cape Town. These buildings accommodate unitedly from forty to fifty patients, most of whom are subjects of the anæsthetic variety of the disease. The accommodation afforded them is of a very unsatisfactory kind, and, indeed, quite unworthy of one of our chief colonies. As no law, of course, exists compelling miserable beings so affected to live in seclusion, there are many cases scattered about the country, either dependent on friends or living in families. The hereditary predisposition to the disease is not, in this country, very apparent.

IN the last number of the *Pharmaceutical Journal* Mr. B. Proctor, of Newcastle, cautions the trade against a quantity of Persian opium now offered for sale at about one-third of the price of good specimens of the drug. Mr. Proctor obtained a small portion which he submitted to analysis. The result proved the presence of only 0·25 per cent. of morphia. Good opium should contain from 6 to 8 per cent. of morphia. There are few who have largely used the preparations of opium—and we would especially particularise the Pil. Saponis Co. of the Pharmacopœia—who have not observed remarkable variations in the potency of the different samples. The price at which Persian opium is now sold throws a light on this unequal strength.

THE death of a cooper, aged sixty years, in the London Hospital, on the 17th of June, was certified as resulting from trichinosis. The patient had been admitted from St. George's-in-the-East, but the certificate of the cause of death neither stated the duration of the case nor the supposed source of the parasite.

A PRIVATE meeting was held at 25, Grosvenor-square, the residence of Earl Percy, on Friday, the 23rd instant, for the purpose of founding an institution for the cure of inebriates, and placing it on a solid and permanent basis. Mr. Holthouse, in response to a request that he would state the result of his experience of the treatment of patients at Balham during the past year, gave indubitable evidence of the efficacy of such homes in weaning confirmed drunkards from their vice. Mr. Holthouse insisted on the necessity of some legislative measure for the compulsory treatment and protection of those who could not by any entreaties be induced to place themselves in an institution. Resolutions in favour of purchasing a suitable building were then passed.

THE number of deaths registered in London last week was 1304, giving an annual death-rate of 20 per 1000. There were included 2 deaths from small-pox, 31 from measles, 46 from scarlet fever, 7 from diphtheria, 36 from whooping-cough, 14 from different forms of fever, 30 from diarrhœa, and 209 from diseases of the respiratory organs. The death of a man in the London Hospital was referred to "trichinosis." In Fulham a man died at the reputed age of 103 years. Of the whole mortality, 20 per cent. occurred in public institutions.

THE Queen's Bench Division of the High Court of Justice having made the rule for a fresh inquest in the case known as the "Balham Mystery" absolute, it is stated that the coroner or his deputy will empannel another jury and proceed with the inquiry *de novo*, "*super visum corporis*." It is satisfactory to know that the investigation is to be commenced anew, as in that case the depositions will be retaken and duly recorded.

WE are happy to state that Dr. Farre is progressing very satisfactorily.

HASTINGS WATER-SUPPLY.

IT will be remembered that a short time ago the Town Council of Hastings, stimulated by public complaints of the local water-supply, sent samples to Dr. Frankland for analysis and report. We believe we are correct in stating that three samples were sent, one from the Ecclesbourne reservoir, one from the well near the gasworks, and one from the No. 4 well in the Buck's Hole, or Old Roar valley. The water from the Old Roar reservoir was not sent, it appears, although at the time of our commissioner's visit it was about the worst, and certainly the most suspicious of all, and although the reservoir is far larger than either of the others.

The report of Dr. Frankland on the samples submitted to him—samples, it must be remembered, collected by the town authorities, and therefore not likely to have been exceptionally bad—has for several weeks been in the hands of the Town Council. We have waited for its appearance, and have even applied to the town clerk for a copy, but in vain; we presume therefore that the Council do not intend to publish this important document. A more egregious error it would be scarcely possible for a public body to commit. It is, of course, certain, from its suppression, that the report does not support the views of the Water Committee, and contains statements which they consider damaging, but they ought to have seen that this conclusion is so very obvious that it could escape no intelligent observer, and that an unfavourable verdict thus carefully hidden could scarcely fail to be exaggerated in the public imagination. This view is, we are glad to find, taken by

several of the local journals, and the *Independent* even comments, with grave but by no means unfair emphasis, on the injury which is likely to result from the blunder.

Instead of publishing Dr. Frankland's report as they should have done, the Council have printed and circulated extensively the report of a sub-committee of their own body, which is evidently intended as an answer to the charges made against the water-supply by ourselves and others. We regret to say that a more feeble and unsatisfactory document never came into our hands. It is throughout apologetic in its tone, and abounds with admissions which show how completely the high ground taken by the officials at the beginning of the inquiry has been abandoned. It contains extracts from the reports of Dr. Frankland and Mr. Topley. Of the former, of course, we cannot speak, but as to the latter we regret to observe that no allusion is made to Mr. Topley's very plain statement that it is unlikely that the supply at present drawn from deep wells in the district could be indefinitely increased, or to his equally plain condemnation of the Old Roar and Clive Valleys as sources of supply. Yet these passages in his report are about the most important of all. What is given us of Dr. Frankland's report coincides exactly with the opinions we have expressed. The deep-well water was good, as we said it was. That from the Ecclesbourne reservoir and from the gas-works well, which also acts as a reservoir, "contains organic impurities," and is considered "even after efficient filtration to be open to suspicion." These words are almost identical with our own, and when it is remembered that the waters of the Shornden, Clive, and Old Roar reservoirs were shown by us to be exactly analogous to that of Ecclesbourne, the Old Roar being probably the worst, that *these waters were not submitted to or reported on by Dr. Frankland*, and that Mr. Topley condemned both the Old Roar and Clive, it is perfectly amazing to find that the authorities have determined to abandon the Ecclesbourne reservoir as a source of supply, and retain all the others!

With regard to our own comments, the matter is still worse. Our statements were very definite. Actual figures, the nearest approximation to truth that we could procure, were given; and if the statements were true they were abundantly sufficient to support our conclusions. We asserted, firstly, that the deep-well water of the town was good, but that it did not amount in quantity to one-half of what was needed for the town; secondly, that the present system of supplementing this supply by surface drainage, impounded and stored in reservoirs, was attended with urgent risk, the water so obtained being bad and liable at any time to become most dangerous; and, thirdly, that while the present system of filtration was a mere farce, no amount of filtration could render surface-drainage water from a populous and to a large extent highly cultivated district safe. Not the slightest attempt has been made to answer any one of these statements, important though they were. They were made after the most careful deliberation, and after weighing every argument on the other side; and we, being persuaded they are true, commend them once more most earnestly to the notice of the inhabitants of the town.

The insufficiency of even the best filtration to render water safe has been completely established, and is no longer doubted by any sanitary authority of eminence. Dr. Frankland was the first to prove it by experiments on the specific poison of cholera, and only a month or two ago he urged the same view in a lecture to the fellows of the Chemical Society of London, in which he commented on the conclusive experience gained at Lausan, in Switzerland, in 1872. So strong, indeed, is Dr. Frankland's opinion on this subject known to be, that we think it not unlikely that in his Hastings report he has made some statement of the kind in it, and so exhibited the uselessness of the expense the town authorities are incurring for new filter-beds. To avoid any misconception of these remarks, we will add that we by no means intend to deny the value of filtration. It is better than nothing, undoubtedly, but can never render dangerous water safe.

One more observation it is right to make, although it is entirely unnecessary as far as our medical readers are concerned. At the close of the report of the sub-committee it is stated that they have been "unable to trace a single case of sickness caused by water supplied by the town." If this means anything, it means that contaminated water always produces zymotic disease, and that therefore the Hastings water must be good. Every scientific man knows that this is a simple absurdity, which would be laughable if it were not so mischievous. It is the old fallacy which has done more than anything else to hinder sanitary progress. "My father drank this water, and I have drunk it all my life, and we have always had good health," is the answer always ready when a medical man points out that the cesspool drains into the well; and the answer is often true, as far as it goes. Nothing in sanitary science is more remarkable than the irregular effect of bad sanitary conditions. But nevertheless it is matter of certainty that cholera, typhoid fever, and other zymotic diseases are spread by foul water and air, and can only be spread when certain conditions concur. At the time of the cholera epidemics of 1848 and 1866 thousands had no doubt been drinking the foul waters of the Thames and Lee for years with impunity, but it was only when the specific poison was introduced into the water by some unforeseen occurrence, such as the two cholera deaths in Priory-street, Bromley, in 1866, that the water suddenly became a deadly poison, which spread the disease through whole districts. The people of Hastings may be so fortunate as to go on drinking bad water without suffering severely, but there remains the possibility that at any time an epidemic may arise through its means which shall inflict lasting injury on the town.

That this absurd and long-exploded fallacy is entertained by the town authorities is more a matter for regret than wonder, for we learn from the *Independent* that the East Sussex Medico-Chirurgical Society recently appointed a committee to confer with the Water Committee on the question of water-supply. It might have been thought that the town committee would have esteemed themselves fortunate in gaining the voluntary assistance of the leading scientific men of Hastings. That august body, however, thought differently, and curtly declined either to see or hear the medical committee!

"THE POOR AND THE HOSPITALS."

Fraser's Magazine for June contains an article with the above heading which may possibly attract the attention of the philanthropic public; and since the article in question has some valuable suggestions mingled with much that is entirely erroneous, we purpose making a few remarks on the ideas set forth in it.

The writer (whose initials are "S. E.") says: "The boards of management of these hospitals are, as we have said, nearly absolute in their powers within their own domain, and are practically self-elective for an indefinite term, provided the individual members are willing to give a reasonable amount of time and attention to their duties. Occasionally a coroner's inquest will reveal to the public a little internal hospital management; but as the inquests throughout the whole of England only represent 5 per cent. of all the deaths,

little can be gleaned from this source, and the only ordinary communication of these managing committees with the outer world is through their annual reports to the subscribers." What does this mean? It seems to us to imply that patients are often killed in hospitals by mismanagement, and that the public have no means of learning the truth. Since, however, "S. E." contents himself with an assertion so remarkably indefinite, we need not be at the trouble of replying except by making a counter-statement to the effect that, to the best of our belief, "S. E.'s" implied accusation is absolutely foundationless. To say, however, that the only communication between the committees and the outside world is by means of the annual reports is certainly very far short of the truth. The constant and ever-changing current of patients in a hospital, the almost unrestrained visitations by the friends of patients and the philanthropic public, to say nothing of the crowd of medical men, students, ministers of religion, nurses and probationers, who all find business about a hospital, and all of whom naturally talk about the hospital and its work to their own particular circle of acquaintances, are means of communicating with the public quite as effectual as reports and newspapers; indeed, they are far more effectual and trustworthy, for while a report may be easily "cooked" to serve the ends of some interested person, the average opinion of the public is evidently not open to such influences. Most of the London hospitals court publicity, and place no hindrance in the way of persons who wish to see what is going on in them. And it is certainly surprising that the class to which "S. E." belongs has been able to discover a minimum of abuses (a condition of things which is in striking contrast to that which existed under the old Poor-law Board). All that goes on in a hospital is done, as it were, beneath the immediate gaze of the public who supply the funds, and any stronger motive for correct conduct on the part of the hospital authorities it is impossible to imagine.

Again, "S. E." finds fault with the hospitals for issuing reports which are barren of information. "We have found but very few which give a full and analytical statement of the medical and surgical cases, and none which enlarge at all on new systems of treatment or nursing, new discoveries in medicine or surgery, or throw out any sanitary suggestions by which either the public or the students are much the wiser or better." If "S. E." wishes to see the reports issued by committees turned into popular pamphlets on the treatment of disease, we can tell him that the fulfilment of his wish would assuredly open the door to the worst forms of medical advertising and the most insidious and baneful kinds of quackery, no less harmful to the public than to the profession. But how strange is the ignorance of "S. E." with regard to hospital reports. Does it occur to him that these analytical reports are expensive documents, and that to issue them broadcast to the general public, who would neither care for nor understand them, would be a gross waste of funds? It is well known that the more important hospitals retain the services of paid medical and surgical registrars, and if "S. E." will write to the secretaries of Guy's, St. Bartholomew's, St. Thomas's, University College, the Middlesex, Westminster, or Charing-cross hospitals, he will receive an analytical report which, we may inform him, is full of useful information to those who have had some training in medicine and surgery. The suggestion that these reports should all be modeled on one pattern is a very good one, and one which we may hope some day to see carried out; but when "S. E." says, "the reports of hospitals should be made returnable by the medium of the Registrar-General to the general Government *from whom they obtain their charters*," we are once more surprised at the astounding ignorance of hospital affairs which this would-be professor betrays.

"The evils that do exist in hospitals arise very much from their having been founded in connexion with schools of medicine, which caused the instruction of students to be of more importance than the cure of the sick, and a brilliant operation more necessary than the life of the subject." The medical profession have been so pelted with mud of late that we have grown callous to such childish and ignorant slanders as the above, but if "S. E." has a proper sense of his duty towards the public he will not hesitate to publish boldly the name of any hospital whose conduct has inspired him to write such a paragraph. "Of late years, however, a different state of things has prevailed in the hospitals; they have ceased to be merely experimental schools for students, some of them having no students at all, and most of the special, and all the incurable hospitals, being solely for the benefit of the patients." From these two paragraphs it is evident that "S. E." regards a medical school as an unmitigated evil for a hospital, and that his belief is that the interests of patients are best looked after in the special and incurable hospitals. "The vastly improved systems of nursing also, under the active example and benign influence of the sisterhoods, and Miss Nightingale's pioneer work, have made the hospitals in many cases pleasant temporary homes for the sick poor, rather than gloomy torture-chambers."

We quote this last paragraph merely for the sake of showing the mental bias of "S. E.," and before replying to the implied accusations, we will lay before our readers the suggestions which he offers for increasing the utility of the hospitals:—

"We would try to show that much more than at present might be got out of all this subscribing and managing, doctoring and nursing." We should try "First, to effect a more thorough cure of the patient; second, to provide in some way for his family, if he has one, while he is being cured; third, to turn him out decently clothed, and with a little money in his pocket; and, fourth, to try to prevent his being obliged to come to the hospital again. The care of the poor, as we have said, to be efficient must be equally physical, social, and moral, and the force of our plan is in the fact that by beginning with the physical improvement we can simultaneously look after the social and moral."

"S. E." thus sums up his remarks:—"We would, first, have no cases absolutely refused by the general hospitals except such as it is well known are provided for by the parish authorities. Secondly, such cases as it is neither profitable to the patients or to the medical students to keep in the hospital, we would send, with a certificate from the hospital, to such special hospitals as are prepared to devote themselves to such cases, and are willing to allow students to visit their wards when requested. Thirdly, in the general hospitals we would have a vigorous encouragement of such societies as examine into the wants of the poor, and visit the patients in the wards or their families at their homes. Fourthly, we would have a business-like alliance with the convalescent homes, so as to insure a reliable and immediate admission of every case, which we think can only be done by a regular charge being made for all such cases. Fifthly, we would have the Samaritan funds more noticed by hospital benefactors, and put on a more efficient footing, either by assistance from their own hospital or from outside Samaritan societies, so as always to have available aid for patients in their transition state from cure to health. Sixthly, we would advocate the circulation of simple sanitary books and tracts among patients, to teach them the common laws of healthy living. Seventhly, we would encourage more visiting in the wards by ladies under the authority of the chaplains. Eighthly, we would have the reports of the hospitals more detailed and instructive as regards the cure of the sick, with a view to removing some of the causes which bring the poor to them; to effect more good by means of the reports, they might all be sent in to some one officer who should condense them into one general treatise on the subject. Lastly, we would advocate the establishment of some weekly or monthly journal devoted to hospital interest."

We may now examine some of these recommendations. As to the occasional refusal to admit cases at the general hospitals, we believe this is only done under the following circumstances:—Firstly, from want of room, and even "S. E." will see that this is a difficulty which no amount of talking will overcome. Secondly, from the unsuitable nature of the case: thus, infectious cases are transferred to the fever hospitals, and chronic invalids, who could not reasonably expect to be benefited by a sojourn in a London hospital, are, very properly, we think, advised to apply for relief to some special institution, such as the Consumption hospitals, Margate Infirmary, The Bath Mineral-Water Hospital, the cancer wards of the Middlesex Hospital, and similar establishments. One of the greatest difficulties in hospital management is to prevent the hospital being choked with chronic

cases and being thereby obliged to refuse admission to acute cases, to which, of course, most good can be done. It would manifestly be very unwise to fill up the beds of a hospital in one of our crowded districts with cases which, humanly speaking, can never be materially benefited and then have to refuse admission to the father of a family seized with acute illness and for whom a month's nursing perhaps may be the means of restoring him to complete health and keeping his wife and children from being a burden to the parish.

The suggestion that the philanthropic societies should be encouraged to prosecute systematic inquiries into the condition of hospital patients is one of doubtful practicability. Those patients whose circumstances call for investigation are a decided minority, the majority of the patients belonging to a class which would scorn to receive charity in an ordinary way, and who would look upon any attempt to pry into their concerns as an unwarrantable liberty. There are cases, however, and many of them, in which we doubt not the hospital authorities would be glad of the assistance of such a body as the Charity Organisation Society. The suggestion as to the Samaritan funds is undeniably good; neither do we see any reason why bodies like the Ladies' Sanitary Association should not ask the hospitals to distribute their publications. "S. E." may not be aware that it has been the custom of many of the children's hospitals to give away printed circulars on the proper management of children, and we think this is a plan well worthy the adoption of the general hospitals. With regard to the visitation of the sick by ladies under the guidance of the chaplain, we are of opinion that the moral teaching, like the nursing and the doctoring, is best left in the hands of professionals, and should not be carried out by amateurs. People of all shades of religious opinion meet in hospitals, and the religious instruction cannot be left in the hands of one sect or one society. The suggestion about hospital reports we have answered, and the idea of a hospital journal shows us the evident leaning of "S. E." towards specialism.

Since "S. E." has such an evident horror of medical schools in their relation to hospitals, we would test the validity of his objections by referring to the annual report of a hospital which owes its very existence to the needs of a medical school. We mean University College Hospital. At this hospital there are 154 beds and nearly 400 students. Notwithstanding this we do not hear of cruelty, wantonness, or mismanagement, and a glance at the returns of patients will show that the poor do not regard it with abhorrence. It would indeed be a strange upsetting of one fondest hopes if it were found that high education made the heart callous, and that men whose lives are spent in intellectual pursuits are less capable of managing a hospital than the tradesmen who frequently constitute the controlling bodies of similar charities. University College was one of the first hospitals to hand over its nursing to the control of a sisterhood; and although there may be two opinions as to the wisdom of such a step, we are sure that the writer in *Fraser* will applaud them for doing so. Again, it issues full statistical reports, in the preparation of which it receives valuable assistance from its students. It may not be uninteresting to "S. E." to be informed that the students, by the payment of their fees for clinical instruction (which, with a liberality probably unparalleled, have been assigned for the general purposes of the hospital by the medical staff), have contributed something more than £80,000 towards the maintenance of the hospital in a period of forty years! The presence of students about a hospital is a benefit to the patients in other ways. First, it compels the medical staff to keep themselves informed in all that is newest and best in medical knowledge; and, secondly, it provides a far larger corps of skilled attendants than otherwise could be afforded. As there is generally a sharp competition for the students' appointments in a hospital, they are filled by the best and most industrious men. "S. E." is in error in supposing that students engaged in dissecting are permitted to attend lying-in women: such a thing is, on the contrary, strictly forbidden. The Samaritan funds of this hospital are large and well administered. They enabled the committee last year to send 314 patients (20 per cent. of the entire number discharged) to convalescent hospitals; to give away nearly 400 instruments of various kinds to patients in need of them; to give over 5000 dinners to the sick poor, and 1500 quarts of new milk to starving children; besides grants of money to patients for special purposes. Five guineas a year is, we find, contributed to the Charity Organisation Society, "for the purpose of ascertaining the accuracy of statements made by the recipients of the Samaritan funds," but no details are given of any cases so investigated. This hospital has instituted several special departments, and those for the treatment of eye diseases and skin diseases, as well as the maternity and children's department, are widely known and justly appreciated.

We have not selected University College because we think it is either better or worse managed than other hospitals having medical schools, but because at it the school element bears a larger proportion to the charitable element than elsewhere; and notwithstanding this evil (as "S. E." would consider it) it has, strangely enough, forestalled "S. E." in many of the reforms which he has suggested, and has proved conclusively that the presence of students in no way interferes with the well-being of the patients, but, on the contrary, enhances it materially. "S. E." has, we think, made the error, which is often made by the public, of confounding the "medical student" of the music-halls and the police reports with the real students of medicine who are to be found in the hospital wards. If he has done this we can understand and even sympathise with his evident repugnance; but we can assure him that they are not the same individual, and that to confound them is a great injustice, and may be the means of depriving the poor of London of some of their most trustworthy and truest friends.

BIRMINGHAM.

(From our own Correspondent.)

THE Brown Lectures on Pathology are this year to be delivered in Birmingham by Dr. Burdon Sanderson, F.R.S. The Medical Institute have the credit of securing this advantage for the profession this year from the University of London. The lectures, five in number, will be on the Pathology of Inflammation, and the subject of the first lecture, which will be given on Thursday, July 6th, at 4 P.M., at the Masonic Hall, will be "The Influence of the Nervous System on Circulation and Nutrition."

The lately published report of the Health Committee of the Town Council shows that they are giving great attention to the health of the borough. Members of the Committee have made special inspection of the districts assigned to them, and abstracts of their statements are appended to the report. Four public mortuaries, each fitted for the reception of two bodies, are to be at once erected, and the Coroner is to hold inquests at the Public office, and at the various police stations, in the rear of which the mortuaries are to be built.

The medical officer's report for the quarter ending April 1st shows a great fall in the mortality of the borough, when compared with the first quarter of 1875, and the result is chiefly due to a decrease in the mortality from diseases of a zymotic character.

There have been only three patients in the Borough Hospital during the quarter, but the committee have decided to keep the hospital open, so as to enable them to cope with any outbreak of zymotic disease that may occur; and to assist them in carrying out their intention, the guardians to whom the hospital belongs have considerably reduced the rental—from £500 to £100. 147 samples of water have been submitted to the Borough Analyst, and sixty-one wells, the waters of which were found to be unfit for use, have been permanently closed.

The much-needed extension of the Children's Hospital will embrace isolated and detached wards for fever cases, diphtheria, and other contagious diseases; dormitories for the nurses, a new laundry, &c. When finished, the large ward now used for infectious cases will be available for ordinary cases, and this will be a great boon to the hospital on sanitary grounds, as well as a useful addition to the ward space at the disposal of the medical and surgical officers.

The total amount distributed to the various medical charities of the town as the result of Hospital Saturday was £3400. The committee and treasurer deserve great praise

for the excellent arrangements made this year, and which resulted in so handsome a response on the part of the working classes.

Local Government inquiries are being held on all sides of us. Aston, a large and increasing suburb, wants to be made into a separate corporation, much against the will of our late popular Mayor and probable future member (Mr. Joseph Chamberlain). Handsworth, another suburb, wants funds to carry out sewerage works and pave streets; a united system of drainage for the district of which Birmingham forms the centre; and, lastly, a deep drainage scheme for Dudley, are all on the *tapis*, and afford ample work for inspectors and commissioners from the Local Government Board. What seems to be urgent is that the boundaries of large towns should be from time to time extended; otherwise, however well governed and healthy in their own arrangements they may be, they are apt to become surrounded by insanitary suburbs where local government either does not exist or is, at any rate, badly administered.

Birmingham, once ill supplied with parks and recreation grounds, is now favourably off in that respect. A valuable piece of ground, forty-three acres in extent, has recently been given to the town by Miss Ryland, the former liberal donor of Cannon-hill Park; and the corporation have recently acquired by purchase two smaller areas well suited for healthy sports, and in the midst of large and increasing districts, which will bear the names of Highgate and Summerfield Parks respectively.

Mr. Edwin Chesshire, F.R.C.S., has offered, through the Council of the Midland Medical Society, a prize of five guineas to the writer of the best essay "On the Value of Venesection in the Treatment of Disease." Papers to be sent to the secretaries not later than September 15th next.

The sons of the late eminent ironmaster, Mr. A. B. Cochrane, of Dudley, offer to the Guest Hospital of that town a sum of £2370, for the following purposes:—1, to provide destitute patients with clothes; 2, to pay cab-fares, &c., for patients leaving the hospital; and 3, to send patients and nurses to convalescent homes at the seaside or elsewhere.

An unfortunate difference of opinion appears to have arisen between Dr. Robinson, the parish vaccination officer, and the surgeons of the out-door department of the Children's Hospital, as to whether those gentlemen ought or ought not to give certificates of fitness or unfitness of children for vaccination. Even though Dr. Robinson is right in the main as to the danger of out-patients with contagious diseases coming to his offices, it is scarcely fair to expect honorary hospital officers to spend their time in giving gratuitous certificates, which they never contracted to give, and which it is his special duty to supply.

Birmingham, June 26th.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.—MONDAY, JUNE 26TH.

ARMY MEDICAL OFFICERS.

DR. WARD asked the Secretary of State for War if it was true that medical officers who were appointed by his Royal Highness the Commander-in-Chief to the medical charge of regiments for five years, prior to the issue of the last new Warrant of April, 1876, were to be removed from those regiments and sent on foreign service before the completion of the said period of five years.

Mr. HARDY.—They are; as by the recent Medical Warrant of the 28th of April, 1876, the department has become unified, and the paragraph attaching medical officers to regiments for five years, as a rule, under the Warrant of 1873, has been abolished. All medical officers, whether formerly attached to regiments or depôt brigades, or not, are now placed on one general roster, according to their service at home, sending abroad first those who have served at home longest. I may mention that the first of these has not served out of this country for fifteen years.

THE STATISTICAL SOCIETY.—The forty-second annual meeting was held on the 27th June, at the Society's rooms, the President, James Heywood, Esq., F.R.S., in the chair. The report read showed that the Society continues to advance steadily in numbers and in public estimation.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on June 22nd:—

De Caux, Frederick, Bracondale, Norwich.
Grimwood, John Joseph Wright, Bury St. Edmund's.
Harper, Charles Norton, Victoria-park-road.
Holloway, George, Wednesbury.
Kay, William, Goswell-road.

The following gentlemen passed the Primary Professional Examination on the same day:—

Bigg, G. S. K., Middlesex Hospital.
Hetherington, G. H., St. Thomas's Hospital.
Lightfoot, W. S., St. Thomas's Hospital.

The successful candidates for the prizes in Botany, 1876, were: 1st, Richard Bredin, of the Liverpool School of Medicine—a gold medal; 2nd, Herbert Alfred Hill Fenton, of St. Thomas's Hospital—a silver medal and a book.

The will of Sir John Cordy Burrows, F.R.C.S. Eng., of Brighton, who died on the 25th March, has been proved under £5000.

"LEADERS IN MEDICINE AND SURGERY."—Messrs. Barrand and Jerrard, of Gloucester-place, W., have forwarded to us a copy of the above plate, which contains 183 portraits from life of distinguished members of the profession. The portraits are remarkably faithful and life-like. Copies are sold at £3 3s. each, or, framed, £5. Size of plate, 29 by 19 inches; outside measure of mount, 36 by 27.

The annual meeting of the Northern Counties Association of Medical Officers of Health will be held in the lecture-room of the Literary and Philosophical Society, Newcastle-on-Tyne, on Monday, the 3rd inst., at 2 P.M., when, after the transaction of the usual formal business, an address will be read by the president, Dr. H. J. Yeld, followed by several papers. The members of the Association will afterwards dine together.

The Torquay Local Board, which is now engaged in carrying out a new main drainage scheme, recently held a special meeting to consider a change in their plans, transferring the outfall to a spot opposite the Thatcher Rock. This deviation from the accepted scheme will, it is asserted, effect a saving of nearly £5000; it is in reality only a return to the point of outfall originally proposed by Sir Joseph Bazalgette. The proposal to adopt the outfall opposite the Thatcher, or any other less expensive point approved by Sir Joseph, was carried, subject to the approval of Sir Lawrence Palk and others, with whom the Board had entered into agreements to carry out a certain plan.

Medical Appointments.

BLACKMORE, G. H., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Fulham Union Workhouse, vice Barnes, resigned.

BRINGLOE, C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Westhoughton Urban Sanitary District, vice Gregory, resigned.

BRUMMITT, R., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Brighton and Hove Lying-in Institution, vice Whittle.

CHESMAN, E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Llanbister District of the Knighton Union, Radnorshire, vice Brown, resigned.

CONNER, W., L.R.C.P.Ed., L.R.C.S.I. & L.M., has been appointed Medical Officer and Public Vaccinator for the Dunsford and Tedburn St. Mary Districts of the St. Thomas Union, Exeter, and for the Cheriton Bishop District of the Crediton Union, vice Stephens, resigned.

EDWARDS, T. M., M.D., has been appointed Medical Officer to Court Central Somerset, 3904, of the Ancient Order of Foresters, Glastonbury, for the ensuing year.

ELLIOTT, G. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 2 District of the Westbourne Union, Sussex, vice Reed, resigned.

ELLIS, J. W., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Huntingdon County Hospital, vice Godfrey, resigned.

FOSBROKE, G. H., Jun., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Alcester, Evesham, and Stratford-on-Avon Rural, and Evesham and Stratford-on-Avon Urban, Sanitary Districts, at £600 per annum, for three years.

HANDS, A., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the newly-formed Wednesfield District of the Wolverhampton Union.

HARPER, G. S., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Belgrave Hospital for Children, Cumberland-street, Eccleston-square, vice Henley, resigned.

HARTILL, J. T., L.R.C.P.L., M.R.C.S.E., has been appointed Public Vaccinator for the Willenhall and Wednesfield Districts (newly formed out of the old Willenhall District) of the Wolverhampton Union, vice J. Harthill, M.R.C.S.E., L.S.A.L., resigned.

HAVILAND, A., M.R.C.S.E., has been reappointed Medical Officer of Health for the Brackley, Daventry, Hardingstone, Market Harborough, Newport-Pagnel, Northampton, Oundle, Potterspury, Thrapston, Uppingham, and Wellingborough Rural, and Daventry, Hardingstone, and Oundle Urban, Sanitary Districts, for three years, at £700 per annum.

HOSEGOOD, S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Swinton and Pendlebury Urban Sanitary District, vice Shearman, resigned.

HUGHES, H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bethesda Urban Sanitary District.

KEATS, W., L.K.Q.C.P.I. & L.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Louisburgh Dispensary District of the Westport Union, co. Mayo, vice Hamilton, resigned, and appointed to the Achill Dispensary District of the Newport Union, co. Mayo.

KELLY, D. J., L.R.C.P.Ed. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Mullingar Dispensary District of the Mullingar Union, co. Westmeath, vice Stokes, resigned.

MACCALL, W. N., M.D., has been appointed Honorary Surgeon to the Clinical Hospital and Dispensary for Children, Manchester.

MCLEOD, A. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 1 District of the Fulham Union, vice Egan, resigned.

MARTIN, J., L.R.C.P.Ed. & L.M., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the Alcester District and the Workhouse of the Alcester Union, Warwickshire, vice Smith, resigned.

MILLNER, E., L.F.P.S.G., L.S.A.L., has been reappointed Medical Officer of Health for the Rainford Urban Sanitary District for the ensuing year.

O'MEARA, T., M.D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Newbold and Dunston Urban Sanitary District, vice Mackintosh, whose appointment has expired.

POYNDER, G. F., M.R.C.S.E., has been appointed House-Surgeon to the Westminster Hospital, vice Price, resigned.

SPENCER, L. W., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been reappointed Medical Officer of Health for the Preston Rural Sanitary District, at £100 per annum.

STYRS, W. J., M.D., has been reappointed Medical Officer of Health for the Liversedge Urban Sanitary District for the ensuing year.

WALKER, G. E., L.R.C.S.I., M.R.C.S.E., has been appointed Assistant-Surgeon to H.M. Convict Prison, Portland, vice Bernard, appointed Resident Medical Superintendent of the Metropolitan District Small-pox Asylum, Stockwell.

WEAKLEY, S. J. J., L.R.C.P.I., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Stickney District of the Spilsby Union, Lincolnshire, vice Maxwell, resigned.

WEBSTER, W., M.R.C.S.E., L.S.A.L., has been appointed Public Vaccinator for the King's Lynn Union, vice Woodward, resigned.

WILKINS, R. B., M.R.C.S.E., has been appointed House-Surgeon to Queen's Hospital, Birmingham.

WILL, J. C. O., M.D., has been appointed a Surgeon to, and a Lecturer on Clinical Surgery at, the Aberdeen Royal Infirmary, vice Kerr, resigned.

WOODS, D., M.D., L.R.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Clifton District, and Public Vaccinator for the Clifton and Austrey Districts of the Tamworth Union, vice Edmonds, resigned.

Births, Marriages, and Deaths.

BIRTHS.

ANNANDALE.—On the 15th ult., at Charlotte-square, Edinburgh, the wife of Thomas Annandale, F.R.C.S.Ed., of a son.

CANTON.—On the 27th ult., at Camden Villa, Southsea, the wife of George Anderson Canton, M.R.C.S.E., of a daughter.

HACKNEY.—On the 21st ult., at Warbleton, Sussex, the wife of A. H. Hackney, M.R.C.S.E., of a daughter.

MACPHERSON.—On the 20th ult., at Bath-street, Glasgow, the wife of R. N. Macpherson, L.R.C.P.Ed., of a son.

PARSONS.—On the 23rd ult., at Sunnyside, Wimbledon, the wife of T. E. Parsons, M.R.C.S.E., of a daughter.

ROBERTS.—On the 20th ult., at Avenue House, Peckham-rye, the wife of J. C. Roberts, L.R.C.P.Ed., of a son.

SKEENE.—On the 19th ult., at Buckhurst-hill, the wife of William Skeene, M.D., of a son.

THURSFIELD.—On the 26th ult., at Leamington, the wife of T. W. Thursfield, M.D., of a son.

MARRIAGES.

MALE—NORTON.—On the 28th ult., at St. Peter's, Belsize-park, Henry Davis Male, L.R.C.P.L., of Victoria-park-square, to Juliana, youngest daughter of the late J. Howard Norton, M.D., of Nantglass, Carmarthenshire.

RENTON—RODGERS.—On the 21st ult., at St. Stephen's, Lambeth, by the Rev. Canon Titcombe, George Renton, M.D., of Consett, Durham, to Mary, daughter of the late Robert Rodgers, Esq., of Wavertree, Liverpool. No cards.

WILSON—PAGE.—On the 1st ult., at St. Paul's Church, Newcastle-on-Tyne, Adam Wilson, L.R.C.P.Ed. &c., son of Adam Wilson, Esq., of Broom House, Ayrshire, N.B., to Annzelia Henrietta, daughter of David Page, LL.D., Professor of Geology, University of Durham College of Physical Science.

DEATHS.

FLEMING.—On the 25th ult., at Brighton, J. W. Fleming, F.R.C.S.Ed., Surgeon-Major, Army, half-pay.

MERRY.—On the 20th ult., at Marlowes House, Hemel Hempstead, Robert Merry, F.R.C.S.E., aged 65.

NEWMAN.—On the 24th ult., at Craig Alley, Cove, Dumbartonshire, Edward Newman, M.D., Fleet Surgeon, R.N.

SCOTT.—On the 19th inst., at Bengal, Robert John Scott, M.B., Staff-Surgeon, Army.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

A NUISANCE REMOVAL AUTHORITY MAKING A NUISANCE.

THE vestry of Islington, possibly not more obtuse than other vestries in respect to its duties, is exceptionally bold in the conception, carrying out, and subsequent defence, of schemes adverse to the local and public interests. The right to do wrong is one even systematic offenders have so seldom the courage to claim, that a certain respect for the audacity of such a proceeding must somewhat embarrass the censure we should otherwise have no hesitation in passing on this local authority for the most recent of its exploits against the health and happiness of the inhabitants of a favoured district. The vestry of St. Pancras has during the last two years been tranquilly dozing, while the lesser authority responsible for the one side of Euston-square has been allowing the pleasure-ground to be let out as a "dust tip"; but the vestry of Islington parish has, it seems, procured land and started a "dust tip" of its own. It is astonishing how dust tips have multiplied since the glorification of that particular stock-in-trade by Charles Dickens, first in *Household Words*, and afterwards by the admirable portraiture of success in the career of Mr. and Mrs. Boffin of "Our Mutual Friend." It does not appear that the vestry of Islington proposed to make money by farming the dust tip; but, on the principle "a penny saved is a penny got," they deemed it economical to deposit the refuse of dustbins, scavengers' filth generally, and street sweepings, on a plot of land in close proximity to a populous district. It is alleged that no less than four shillings a load has been saved by this device, and, as between two and three thousand loads have been deposited, the money "saved" must amount to something like £400 or £500. Probably anything like hope of profit from the transaction will have to be deferred some four or five years; but vestries are farsighted, the vestry of Islington especially, so longsighted indeed that it has overlooked the near probability of local fever, local maladies of a debilitating class among the poor of the parish, and consequently an increase of the local rates, perhaps such an increase as will effectually write off a moiety of the profits on this sagacious venture, when they accrue. We discuss the question from the economic stand-point, because that is the aspect in which a vestry would naturally regard the subject. Happily it is not so viewed by some of the inhabitants. The vestry has been summoned for the creation of a nuisance, and supported by the strong testimony of Dr. Glover, of Compton-terrace, Islington, as to the pestilent character of the deposit and the peril of the whole proceeding, the case is likely to be placed *sub-judice*, where, of course, we must leave it. A little public prudence of the same order would be desirable elsewhere. Speaking at random, we should say there must be some half-dozen medical men practising in Euston-square; but we have not heard that action has been taken in the matter of that local nuisance, although a new contractor has chosen this particular season for turning over the foul deposit of decomposing animal and vegetable matter. The greater credit is due to the inhabitants of Islington for their spirited attempt to put a summary stop to the nuisance affecting them.

Junior Practitioner.—There are so many points to be considered that no rule can be laid down which will apply alike to all cases. It is better to err on the side of liberality when in doubt.

Isle of Wight.—We do not recommend physicians and surgeons. Let our correspondent consult his own medical adviser in the matter.

M. Nathan Bozeman's interesting paper shall appear shortly.

LONDON HOSPITAL SCHOLARSHIPS.

To the Editor of THE LANCET.

SIR,—Whilst concurring in the remarks of the "four elder students" in your last issue, I hope you will allow me the favour to offer a few words in reply to "Fair Play," who ingeniously attributes the failure of the two first men, placed in the result of the Anatomy examination, to their holding appointments with neighbouring practitioners. This argument is worthless. Since the other candidates did not hold such appointments, why did *they* not succeed in obtaining the necessary number of marks. Again, the gentleman who secured the same Scholarship last year was, I believe, engaged in a similar manner. Further, "Fair Play" seems to be totally ignorant of the real cause of all the discontent—viz., that the questions were unreasonable. Not only were the questions too difficult for first-year's men generally, but the supply of subjects during the late session ought to be taken into consideration, as one of the candidates has informed me that he had actually paid for a part before Christmas, hoping to dissect it before the examination, but was disappointed, as the subject has not come into the dissecting-room to this day.

As to the Buxton Scholarships, I can only inform your readers that several of the candidates had matriculated at the London University.

His remarks referring to the Obstetrical and Medical Scholarships do not speak very favourably of the elder students, who must be either very badly up, or have not the courage to face their own professors.

"Fair Play's" love for the hospital and his teachers must be very great indeed; for if he is one of the oldest students, as he mildly confesses, it is not very creditable to him, as I know two or three seventh- and eighth-year's who still are, seemingly, plodding for their diplomas.

Yours truly,

June, 1876. PRUDENTIA.

*** We have received other letters in reply to "Fair Play." The correspondence must now cease.—ED. L.

SEX MORTALITY IN CALCUTTA.

THE monthly return relating to the mortality statistics of Calcutta during April last, issued by the health officer, Mr. Arthur J. Payne, contains some interesting information relating to the constitution of the population of that city, which is estimated at 447,601 persons. We are told that, although the number of males in the population is more than double that of females, the proportion of male deaths to female deaths was only as 139 to 100. Looked at in another way, it appears that the annual male death-rate in Calcutta in April last did not exceed 27 per 1000, whereas the female rate is given as 40 per 1000. The health officer attributes this apparent exceptional excess in the Calcutta female death-rate to the fact of the migratory character of so large a proportion of the male population, who betake themselves to their homes outside the city when attacked by illness. This disturbing element is in operation in all large towns, and it may be in operation to an exceptional extent in this Indian city; but there is also at work a, to some extent, compensating influence in the deaths of non-residents in the hospitals of all large cities. Bearing in mind the almost invariable excess of male mortality in towns, it appears to us impossible to accept this theory of the migratory habits of the male population of Calcutta as accounting for so large an apparent excess in the female death-rate, because the migratory portion of the male population belongs to groups of ages when the rate of mortality is low. We are inclined to attribute far more importance to the hypothesis that the number of females living in Calcutta at the last census was very considerably understated. The true male death-rate is probably understated in consequence of the migration of invalid males; but it appears far more probable that the remarkable discrepancy in the sex mortality is due to the over-statement of the female death-rate through an under-estimate of the female population. These two disturbing causes probably balance each other, when the death-rate of persons is calculated, which is stated to have been equal to 31 per 1000 in Calcutta during April, when 268 fatal cases of cholera were reported.

Mr. Langley.—We have recently published reports on the Sanitary Condition of Schools, where such information may be obtained.

Dr. R. H. Collyer is thanked for his communication, for which we are, however, unable to find space.

Messrs. Seydel and Co.—The subject has been already noticed.

THE EMETIC PROPERTIES OF ANTIMONY.

To the Editor of THE LANCET.

SIR,—In 1835 or 1836 a debate took place at the London and Westminster Medical Society on the properties of antimony, and it appeared to be well known to several members of the Society who took part in the debate that tartar emetic in very large doses did not act as an emetic. Two or three years after this I was sent for to see a lady, who was staying on a visit with some friends of mine. She had consulted a physician in London in the morning, and he had prescribed for her six powders, each containing one drachm of tartrate of soda, one of which was to be taken three times a day. She took one, and when it was nearly time to take a second she sent for me, and told me that she felt uneasy in her stomach, and that she thought the powder did not agree with her. I fell into her view of the case, and advised her not to take any more of the powders until she had seen her doctor again the next morning. In about two hours after this—that is to say, seven or eight hours after she had taken the powder,—I was again sent for. She was then suffering from acute pains in the stomach and bowels; she had retching, but no vomiting. I then asked to see the powders, and at once saw that they were not tartrate of soda, and on taking them to the chemist who had dispensed them I found that he had sent her tartar emetic by mistake. This lady continued to be very ill for a week or ten days, with violent retching, bloody and mucous stools; but her life never appeared to be in much danger, nor did she suffer any bad after-consequences.

In the year 1826, when I was engaged dispensing medicines prescribed by my father, I found that the almond paste, a mixture of sweet almonds and sugar, and which caused me considerable labour to manufacture, disappeared as fast as I could make it. In order to find out the thief, although I knew pretty well who he was, I mixed half a drachm of tartar emetic with about three ounces of the paste. The whole of this was swallowed by my father's footman just before going to bed; and although he was unable to wait on the family at breakfast the next morning, he was in his place as usual behind my father's carriage at eleven o'clock, and very little notice was taken of his symptoms.

These two cases have convinced me that tartar emetic, as was pretty generally known to the members of the Westminster Medical Society in 1836, does not act as an emetic in large doses. They also convince me that very large doses of tartar emetic may be taken without endangering life.

Yours &c.,

June, 1876. F. E. HICKS, F.R.C.S.

MEDICAL MEN IN THE FRENCH CHAMBERS.

THERE are thirty-seven medical men in the Chamber of Deputies, and seven in the Senate. Fully alive to the duty they owe to their profession, these members have formed themselves into an extra Parliamentary Committee, with a view of examining the medical questions susceptible of being brought before a legislative assembly. President, M. Laussedat; Vice-President, M. Soyo; Secretary, M. Lionville. The first two questions refer to M. Waddington's proposal touching medical assistance in rural districts and that of M. Parent on mineral waters. Two sub-committees have been appointed to report on these proposals.

Health Officer can procure Dr. George Wilson's pamphlet on Sanitary Work in Villages and Country Districts of Messrs. Churchill.

J. H., (Bow.)—We know nothing of the preparation, and never heard that Sir Astley Cooper gave the authority of his name to medicine of the kind.

Mr. John Mitchell should consult a medical practitioner.

SHORTCOMINGS AT THE FACULTY OF MEDICINE OF PARIS.

DR. LIONVILLE, member of the Chamber of Deputies, has laid before the Committee entrusted with the examination of the accounts of the Ministry of Public Instruction some remarks showing how badly the Faculty is situated in various respects. There is actually no hall for examinations. The library is too small to accommodate the number of students who visit it (a mean of 700 per diem), and the space for the arrangement of books is insufficient. Numbers of books are heaped in the attics for want of room. Nor are there, as had been planned, small chambers for the reception of precious books, which require special care and supervision, or for medical periodicals both French and foreign. The museums are inadequate to accommodate any further specimens, so that the Faculty loses the advantage of legacies and gifts in favour of the library or museums for want of space. There is one large lecture-room; but the Faculty would require at least four or five more, where the deputy professors could teach, the important co-operation of these deputy professors having been for years unfortunately unapplied. The Faculty counts 6500 students, besides those of the Military Hospital of Val de Grâce. All these men pay heavy fees, and have a right to laboratories. M. Lionville hopes that the reforms he points out will soon be sanctioned by the Minister of Public Instruction.

CARELESS PHARMACY.

A CORRESPONDENT writes to us to complain that a prescription of one grain of morphia, in six doses, had been made up by a chemist with strychnia instead of morphia. He was, at the second dose, affected with symptoms of strychnine tetanus, and much injured in health. To do chemists justice, this is a very infrequent accident; but to make it more so, we should recommend that they desist from anything like prescribing, and give themselves solely to accurate and faithful dispensing.

THE communication from *Mr. E. H. Jacob* (Leeds Infirmary) has been received, with thanks.

Mr. E. Cooper.—By application to the Secretary of the Charity Voting Reform Association, 30, Charing-cross, S.W.

"CHAOS."

To the Editor of THE LANCET.

SIR,—I propose at the forthcoming meeting of the British Medical Association in August to read a paper on "Chaos," as illustrated by the arrangements made by the Central and Local Boards in the prevention of disease and death, and am desirous of obtaining from medical officers of health, district Poor-law medical officers, and others, information on the following points:—

1. Instances of overlapping and irregularities in districts and conflict of authorities.
2. Instances of variation in size of districts, salaries of officers, and duties.
3. Instances where health officers of combined districts have failed, and do fail, to obtain reliable information as to the occurrence of preventable or epidemic disease, with the cause.
4. Instances where Poor-law medical officers have been called upon by Boards of Guardians to furnish information as to the outbreaks of preventable disease, consequent on the suggestions contained in Mr. Lambert's circular letter of February, 1874, but where no additional payment has been made for the extra labour involved therein, and how far such requirements have been attended to.

As the information I seek to obtain might possibly compromise the gentlemen furnishing it, I will conclude by stating that everything forwarded to me shall be treated as strictly confidential.

I am, Sir, yours obediently,

JOSEPH ROGERS, M.D., &c.

33, Dean-street, Soho, London, W., June 29th, 1876.

DR. PALASCIANO.

THIS well-known Neapolitan physician, who is highly esteemed in his country, has just been raised to the rank of Senator by King Victor Emanuel.

Cotswold.—The 76th article of the General Consolidated Order contains the following express direction:—"Every person whose name is inserted in such list [that is, a list of all aged and infirm persons, and persons presumably sick or disabled, a copy of which is to be given to the district medical officer] shall receive a ticket in the form (L) hereunto annexed, and shall be entitled, on the exhibition of such ticket to the medical officer of the district, to obtain such advice, attendance, and medicine as his case may require, in the same manner as if he had received an order from the guardians; and such ticket shall remain in force for the time specified therein, unless such person shall cease to be in the receipt of relief before the expiration of such time." Lumley, in his "Manual," a work which should be on every medical officer's table, expressly warns officers to receive no list except from the *guardians*.

Student should select those which he finds he can use moderately well. Much depends upon the amount of muscular development at a particular age.

Mr. A. Young.—The article was analysed by us many years ago.

CARBOLIC ACID IN TOOTHACHE.

To the Editor of THE LANCET.

SIR,—I am unaware of any account as to the value of this drug in cases where (there being, of course, no abscess) the decayed cavity of the tooth is exposed so as to be easily got at. I heard a gentleman at one of the London hospitals mention the same fact to-day, and his experience (personal chiefly) quite coincided with mine, which is both personal and from treating a large number of people, men and women.

Yours obediently,

London, June 23rd, 1876. W. H. T. POWER.

THE FACULTY OF MEDICINE OF LYONS.

THE authorities are busy in right earnest respecting the erection of the buildings of the new Faculty. The utmost care has been bestowed on the preliminary steps, the architect having been sent, accompanied by a professor of the school, to various places abroad to become acquainted with the most modern improvements in the arrangements of medical faculties. The buildings are to be erected on the left bank of the Rhône, and divided into five sections—Anatomy, Chemistry and Pharmacy, Physiology and Pathology, Physics and Natural History, and the central section composed of a large lecture-room and a botanical garden: altogether, 12,000 square yards of construction. It is said that the whole will present a very grand aspect, and will cost about £160,000. The sections for Anatomy, Chemistry, and Pharmacy will be commenced immediately, and it is computed that four years will be necessary for the completion of the whole establishment.

X. Y. Z., (York.)—Certainly, the custom of taking spirits before going to bed is a bad one, unless under special circumstances and for special reasons; in fact, in the case of a young, vigorous, and healthy man, the less alcohol he takes the better.

Dr. Buzzard.—It shall receive attention next week.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—For reasons which the contents of this letter will make obvious enough, it was my intention to have written to you regarding unqualified assistants when the subject suddenly appeared on the *tapis*. Having accordingly bided my time and fortified myself with facts, I now hope to be in a position to show that, so far from having any cause to feel offended with "A Disgusted Young Surgeon," the *bona-fide* medical students have good reason to feel much indebted to him for fearlessly exposing a nefarious system, which is far more prevalent in the provinces than pardonable pride, or more likely want of knowledge, allowed my fellow-assistants to admit in their letters in your issue of June 17th.

Having completed my curriculum, and spent some years in a hospital in addition, I was very glad indeed, my social position not being at all good, to be able by means of an assistancy, to lessen the expense attendant upon the obtaining of my diploma, and at the same time still further improve my practical experience. Accordingly I sought for and procured a very pleasing assistancy in a Midland town, and almost the first thing I heard from Dr. Blank was that none of my predecessors—and there had been three or four—had ever attended any hospital or medical school in their lives. When I ventured to express my surprise, he informed me that such a thing was common enough in England, and since then I have gathered information on the point which has thoroughly disgusted me, and oftentimes brought the flush of indignation to my face.

As regards unqualified assistants. There is no denying the fact that in many cases, especially in the provinces, they are degenerating into "shop-boys," and I cannot tell you how humiliated I was when I heard that the post I came to fill had formerly been filled by shop-boys. I am quite delighted to hear that steps are about being taken to protect our interests, and I shall be happy to take an active part in the organisation of some feasible project.

Yours faithfully,
June, 1876. X. Y. Z.

To the Editor of THE LANCET.

SIR,—I am sure that the above class will have reason to thank you for taking their cause in hand. To say the least, the profession must acknowledge that they are a most useful class of men, and in some cases indispensable to the success of the general practitioner.

At the present time so much is being said about improperly qualified persons practising in this country that it becomes necessary for this class to appeal to the profession at large for sympathy, which it is apparently useless to expect from such men as "A Disgusted Young Surgeon."

I would like to inform the two correspondents in your issue of May 17th that I should be glad to join them in establishing an Association for improving the position of assistants generally. But I must be understood as alluding to that class of persons who have been duly entered in our medical schools, or in some way properly apprenticed to the profession, and who, through misfortune or otherwise, have failed to obtain the diploma of the College or Hall; not to those arrant impostors, who, after serving behind the counter in a "surgeon's retail," actually have the boldness and audacity to come forward and call themselves assistants to a doctor, when they are allowed to attend midwifery cases without knowing the measurements of the pelvis or the sacral curve, and set themselves up to diagnose pneumonia or bronchitis, without ever having handled a stethoscope or knowing the meaning of a râle.

It is extremely hard, then, that the class of men I allude to should not have some recognition in the profession, even by examination if necessary.

I enclose my card and address, and remain, Sir, yours faithfully,
June, 1876. SPATULA.

HARVEY TERCENTENARY MEMORIAL FUND.

ACTIVE steps have been taken during the past week to arrive at the beginning of the end of this project. The members of the medical profession resident in the United Kingdom will shortly receive a circular explanatory of the object of the undertaking; and we trust that the response made to the appeal will be hearty, and such as will enable the Committee to raise at Folkestone a statue that may be worthy of the Discoverer and of his country. A list of recent donors to the Fund will be published in THE LANCET of next week.

SAD EVENT.

DR. LEQUESNE, a practitioner in France, whilst returning from visiting a patient, was thrown out of his carriage, and killed on the spot. A tombstone is to be erected by subscription among his professional brethren.

PRESSURE on our space this week compels us to postpone until the next number of THE LANCET the first of a series of articles on the "Treatment of the Insane in America."

CREMATION OF MADAME POGGI.

ON the 24th of April last this cremation took place in the grand cemetery of Milan. The urn used had been generously given by the heirs of Mr. Keller to the Corporation. The body had been embalmed for five months, awaiting the ministerial authorisation, and the consuming operations were conducted with the gas apparatus of Polli Clericetti. Two hours sufficed to complete the cremation, and hardly anything but a dense vapour, with no offensive smell, issued from the chimney connected with the coal and urn. The incineration was complete in spite of the large development of the pelvis, and everything was reduced to dust. The latter was carefully collected, and devoutly placed in a funeral urn. The weight of the body was about one hundred pounds, and the calcined residue weighed only six pounds and a half.

Health Officer, N.—Population 2000. The sewage is treated by filtration through coarse gravel &c.; fluid portion partly disinfected by a solution of lime and carbolic acid, pumped into tanks, and used for irrigating the land. Patients employed in the work. The lands irrigated are immediately around the asylum, but no illness has ever been ascribed to this treatment of the sewage.

Mr. W. G. Sleeman, (Bristol.)—It is contrary to our custom to recommend anyone. Let our correspondent refer the matter to his ordinary medical attendant.

A CAUTION TO PURCHASERS OF PRACTICES.

To the Editor of THE LANCET.

SIR,—Will you favour me with an opinion upon the following? In 1869 I purchased the practice of the late ——— from the *family*. Since then Mr. ——— (his son) has qualified, and is practising within two hundred yards of my house, which I hold under lease of the family. Mr. ——— was an immediate participator of the proceeds of the practice, and has been of the rents since accruing. Notwithstanding, this gentleman, rising in his profession, has thought proper to affix his plate to his house, and to practise in virtue of his late father's name. I have no legal restraint upon him, and have had no communication with him upon the subject; but I contend that, as a professional man and a gentleman, such a proceeding is scarcely consistent, and, if originally intended, ought to have been introduced at the time of my introduction to the practice, as it is a contingency I should have objected to.

I am not aware of Mr. ———'s prospects or the opinions of his advisers; but I should be glad of your advice upon the matter.

I am, Sir, yours obediently,
June, 1876. EXPERIENTIA.

*** As our correspondent says, there is no legal redress for the grievance which he naturally feels. We have thought it best to publish his letter, which raises an important but somewhat infrequent question in medical ethics, and which will suggest a useful precaution to purchasers of practices.—ED. L.

INDIAN HEMP IN THE TURKISH EMPIRE.

IT would appear that so much mischief has been wrought by the use of this plant that some time ago the cultivation of it was prohibited by the Ottoman Government. Quite recently it has been observed that this ordinance is being eluded, so much so that very stringent measures have been adopted to prevent the infraction of this useful law.

Mr. R. Cockerton.—Next week.

OPHTHALMOLOGY AT SUNDERLAND.

To the Editor of THE LANCET.

SIR,—Under the above heading in your last issue you mention my name, and I therefore take this opportunity to *entirely deny* having had anything to do with its insertion in the *Sunderland Times*. Holding as I do a strong opinion against the appearance of anything medical in the local press, I abstained from taking any notice of it, as I considered it would only draw increased attention to the matter by the public.

I ask you, Mr. Editor, how can you prevent from time to time the appearance of cases in the local press? If you can answer this question satisfactorily, you will bestow a great benefit upon medical men like myself, who detest anything like self-praise or advertising puffs.

There is one other point in your notice I wish to draw attention to, and that is, you call me "Dr," in the first portion, and "Mr." in the latter part of your notice. Allow me to say that, although I possess the L.R.C.P.L. qualification, I never have styled myself "Dr.," and do not consider anyone has a right to style himself such who does not possess the M.D. diploma.

I remain yours truly,
Sunderland, June 26th, 1876. THOMAS F. HORSLEY.

*** Our correspondent has overlooked the fact that the "Dr." occurs in the passage marked by inverted commas.—ED. L.

W. W., (Bradford.)—Taylor's Medical Jurisprudence; Roberts's Practice of Medicine, and Green's Pathology; Erichsen or Bryant's Surgery; Meadows' or Playfair's Midwifery; and the Manual of Materia Medica published by Churchill.

Mr. W. McLean.—It will be continued.

NEW CLUBFOOT SHOE.

To the Editor of THE LANCET.

SIR,—Without wishing to detract from the ingenuity displayed by Mr. Barwell in his construction of a new clubfoot shoe, as described in your last issue, I feel bound, in justice to myself, to beg your permission to state that no less than six years ago I devised an appliance on precisely the same principle, but practically found that the plan of acting against the anterior portion of the tarsus, by means of elastic cords governing a joint placed within the sole of the instrument, to be only useful in slight cases, owing to the range of motion obtained by such traction being too limited when varus to any marked extent existed.

I shall be happy to prove the identity in principle of the two instruments to anyone interested in the subject. Yours faithfully,
Wimpole-street, June, 1876. HEATHER BIGG.

"MEDICAL OFFICERS ASKING FOR MORE."

UNDER this heading our good friend *Punch* lately devoted an article to the deputation of Poor-law doctors to the President of the Local Government Board. The deputation cited some instances of the refusal of superannuation, among others that of a medical officer of Kingston-upon-Hull, who lost his health, after many years' service, in combating an epidemic fever, and was left without compensation. "Combats of this kind," observes our contemporary, "save the great majority of Poor-law medical officers from ever wanting any superannuation allowance, and the House can accommodate their bereaved survivors." *Punch* has frequently evinced its sympathy for a "hardly-worked and ill-paid" class of men.

TREATMENT OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—In your issue of May 27th appears a short comment on the above subject. Allow me to bring before the notice of the profession a remedy which in my hands has had the greatest success, and I think might almost be deemed a local specific—viz., that of painting the diphtheritic patches with carbolic acid and glycerine—one part by weight of carbolic acid to six parts by weight of glycerine. This remedy has been used by several Dublin physicians for the past eighteen months, and has proved very efficacious. Living in a district where diphtheria is endemic and occasionally epidemic, I was induced to try it, and for the last twelve months I have used nothing else. I have only lost one case, and I attribute the death in this instance to the neglect of the parents in not calling in medical aid earlier. This application in all cases in which I have tried it has prevented any extension of the inflammatory process, and has appeared to hasten the throwing off of the exudation. I think its chief advantages are owing to the antiseptic and deodorising property of the carbolic acid, which is augmented by the glycerine owing to its affinity for water, and thus acts by absorbing those exudatory products from the inflamed surfaces, and lessening the amount of swelling generally present. I might add that it almost entirely prevents the fetor so unpleasant to the attendants of the patient—not one of the least advantages of this valuable remedy, which has already done so much for surgery and obstetrics. Trusting that through the means of your valuable journal others may be induced to try it,—Yours truly,

Skelmersdale, June 5th, 1876. W. H. WRIGHT, L.K.Q.C.P., &c.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wiltshire; Dr. Lawson, London; Mr. Young, Manchester; Dr. Wartenberg, Manchester; Dr. Helbig, Dresden; Dr. Poore; Mr. Atkins, Weymouth; Dr. Massey, Nottingham; Mr. Appleby, Newark; Mr. Sargeant, London; Mr. M'Keon, London; Dr. Will, Aberdeen; Mr. Whitford, London; Mr. Mackey, Newcastle; Mr. Cowell, London; Messrs. Gream & Harries, London; Mr. Sponart, Dublin; Mr. Etty, Scarborough; Dr. Hunter, Springland; Messrs. Bowles & Sons, London; Mr. Hewett, Forest Hill; Dr. Simpson, Southsea; Mr. Bryden, Stockport; Mr. Hopkins, Pontypridd; Mr. Williams, Heidelberg; Mr. Thompson, Appleby Magna; Mr. Browne, West Bromwich; Messrs. Garman Brothers, London; Mr. Power, London; Messrs. Seydel & Co., Birmingham; Mr. Harrison, Liverpool; Dr. Austin, Tongue; Messrs. Burgoyne & Co., London; Dr. Tuckwell, Oxford; Dr. Collyer, London; Mr. W. Marriott, London; Mr. Armstrong, Newcastle-on-Tyne; Mr. Knight, Hackney; Mr. Cooper, Tombland; Mr. Jennings, Rotherhithe; Mr. Greenwood, Liverpool; Mr. Bernays, Chatham; Mr. Harsant, Bristol; Mr. Whistler, London; Mr. Braden, Lewes; Mr. Fisher, London; Mr. Cooper, Bolton; Mr. Mercier, London; Dr. Wiglesworth, Liverpool; Mr. Watson, Wolverhampton; Mr. Crosse, Eye; Mr. Ray; Dr. Jacob, Leeds; Mr. Marshall; Mr. Magnus, London; Dr. Piggott, Bury; Dr. Skrimshire, E. Dereham; Mr. Sleeman, Bristol; Mr. Woollcombe, Devonport; Mr. Ward, Carlisle; Mr. Craig, Chatham; Mr. Bampton, Douglas; Mr. Beckson, Birmingham; Dr. Maccall, Manchester; Mr. Redford, Chippenham; Mr. Richardson, St. Andrews; Mr. South, Leicester; Mr. Walter, Hartshill; Dr. Cogan, Allerton; Dr. Male; Mr. Hopgood, Sunderland; Mr. Black; Dr. Smith, Kilburn; Dr. Blakeley, Boyle; Mr. Holford, Totnes; Mr. J. P. Denham, Coombe; Mr. Mason, Hertford; Mr. Hyde, Newhaven; Mr. Allman, Rochdale; Mr. Foster, Tunbridge Wells; Mr. Anningson, Cambridge; Mr. Chambers, Uppingham; Mr. H. Dewall, Oswestry; Mr. J. Latimer, Sevenoaks; Mrs. Williams, London; Antacid; A Prizeman; The Editor of the *Ironmonger*; X. Y. Z.; Prudentia; J. H.; A Subscriber; Student; W. W.; Medicus, Willenhall; Surgeon; A. B., Derby; Twenty-one Shillings; A Blockhead; B.A., M.D.; The Secretary of the Statistical Society; Junior Practitioner; Epsilon; D. G. S.; E. R. W., Newport; Iota; A Guardian; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Evans, West Bromwich; Mr. Bradley, Pensnett; Dr. Brady, Derby; Dr. Wilson, Newcastle; Mr. Coales, Tredegar; Mr. Jennings, Ipswich; Mr. Nicholls, Hingham; Mr. Hemsted, Haverhill; M. Preterre, Dieppe; Mr. Longhurst, Leicester; Mr. Clay, Matlock, Bath; Dr. Eberle, Easingwold; Mr. Graham, London; Mr. Wetwan; Mr. Houlbrook, Ilkley; Mr. Hepworth, Manchester; Dr. Negri, Arona; Mr. Symons, Dumfries; Mr. Allen, London; Mr. Smallhorn, Eynsham; Mr. Knight, Nottingham; Pathos, Edinburgh; Delta No. 4; Medicus, Edinburgh; H. H. B.; E. A. H., Tring; X. Y. Z.; X. L. T.; L.R.C.P.; A. B.; Y.; G. M. K.; Medicus, Warwick; Alpha; Spes, Whitby; Medicus, Highbury; M.D.; M. N. K., Edinburgh; Medicus, Oxford; J. P., London; Surgeon, Stoke-on-Trent; Medicus, Eardisley; Gamma, Hackney; A. R., Lynn; N. R. G.; A. B., Dedham; A. B. C., Manchester; Medicus, Manchester.

New Zealand Mail, Hastings and St. Leonard's Observer, East London Observer, Western Morning News, Metropolitan, Cork Constitution, Southport Visitor, Bradford Mail, and *Newcastle Daily Chronicle* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JUNE 29TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
June 23	29·97	N.W.	58	59	77	67	58	0·18	Raining
„ 24	29·90	E.	59	60	106	71	58	0·11	Raining
„ 25	30·02	S.E.	57	69	108	74	47	...	Cloudy
„ 26	30·00	N.E.	59	66	113	77	54	...	Fine
„ 27	30·19	N.E.	56	61	113	80	52	...	Fine
„ 28	30·16	E.	60	64	110	85	57	...	Hazy
„ 29	29·99	N.E.	56	62	95	71	56	...	Overcast

Medical Diary for the ensuing Week.

Monday, July 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. General Monthly Meeting.

Tuesday, July 4.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, July 5.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. Braxton Hicks and Dr. Goodhart, "On the Displacement of the Uterus by Distension of the Bladder, as shown by Experiments on the Dead Body." — Mr. Lawson Tait, "On a Case of Vesico-vaginal Fistula left fourteen years after Lithotomy, cured by a series of Plastic Operations."—Dr. Redmond, "On a Case of Secondary Puerperal Hæmorrhage."—And other communications.

Thursday, July 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, July 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 8.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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